Key figures on the European food chain

2021 edition

KEY FIGURES

eurostat

List of countries

Belgium	BE
Bulgaria	BG
Czechia	CZ
Denmark	DK
Germany	DE
Estonia	EE
Ireland	IE
Greece	EL
Spain	ES
France	FR
Croatia	HR
Italy	IT
Cyprus	CY
Latvia	LV
Lithuania	LT
Luxembourg	LU
Hungary	HU
Malta	MT
Netherlands	NL
Austria	AT
Poland	PL
Portugal	PT
Romania	RO
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Slovakia	SK
Finland	FI
Sweden	SE
Iceland	IS
Liechtenstein	LI
Norway	NO
Switzerland	CH


Reykjavik
ICELAND
NORWAY
Oslo
SWEDEN
Stockholm
FINLAND
Helsinki
Tallinn
ESTONIA
Riga
LATVIA
LITHUANIA
Vilnius
DENMARK
Copenhagen
IRELAND
Dublin
NETHERLANDS
Amsterdam
Berlin
Warsaw
POLAND
Brussels
BELGIUM
GERMANY
LUXEMBOURG
Luxembourg
Paris
Prague
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SLOVAKIA
Bratislava
Vienna
FRANCE
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Vaduz
Bern
SWITZERLAND
AUSTRIA
Budapest
HUNGARY
SLOVENIA
Ljubljana
Zagreb
CROATIA
ROMANIA
Bucharest
PORTUGAL
Lisbon
Madrid
SPAIN
ITALY
Rome
BULGARIA
Sofia
GREECE
Athens
0
500 km
MALTA
Valletta
CYPRUS
Nicosia

Key figures on the European food chain

2021 edition

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Foreword

I am pleased to present this first edition of *Key figures on the European food chain*. This new publication responds to interest in the European Commission's *Farm to Fork Strategy*, which is an integral part of the new *European Green Deal* that sets out to make Europe the first climate-neutral continent by 2050. The *Farm to Fork Strategy* aims to establish a sustainable food system in the European Union that is fair, healthy and environmentally-friendly. Its goals are to ensure that the food chain has a neutral or positive environmental impact, that everyone has access to sufficient, nutritious, sustainable food, and that the most sustainable food also becomes the most affordable.

While some products are sold raw (for example milk, fruit and vegetables) or processed (such as wine and olive oil) directly from farms, most pass through a much more complex food chain. Primary agricultural and fishing products that have been sold by producers or imported, may be graded and packaged, processed, transported and wholesaled, before being retailed in supermarkets, grocery shops, specialist food retailers or markets — or served directly to consumers as food and beverages in restaurants, bars, cafés, and other food and beverage outlets.

Key figures on the European food chain starts with an overview of agriculture and fisheries, focusing on production. It then turns to the processing, distribution and consumption of food and beverages. It finishes with a chapter concerning environmental issues related to various stages of the food chain. Data are presented for the European Union (EU), its individual Member States and European Free Trade Agreement (EFTA) countries, drawing from the rich collection of data that are available at Eurostat. The publication aims to provide intuitive visualisations and innovative data presentations supported by concise texts.

For most datasets, statistics are available until 2019 or 2020. The COVID-19 pandemic and related restrictions have impacted on almost every aspect of life in the EU (and further afield) since March 2020. The pandemic itself and the accompanying restrictions have impacted on the supply of and demand for many goods and services produced and traded within the EU's business economy. Although it is too soon to evaluate the full impact of the crisis, the asymmetric impact of the crisis during 2020 on some stages of the food chain can be clearly seen: the supply and demand for food and beverages in retailing was relatively stable, while there was a large contraction in turnover for restaurants, bars and cafés. Eurostat's most up-to-date statistics showing a broad range of economic and social impacts of the COVID-19 crisis can be found online at: https://ec.europa.eu/eurostat/web/covid-19/overview.

I hope that you find this publication interesting and useful.

Viveka Palm
Director of sectoral and regional statistics, Eurostat

Abstract

Key figures on the European food chain presents a selection of indicators concerning the food chain, from primary production in agriculture and fisheries through to consumption. Data are presented for the European Union (EU), its individual Member States and European Free Trade Agreement (EFTA) countries.

This publication may be viewed as an introduction to agriculture, fisheries and food chain statistics and provides a starting point for those who wish to explore the wide range of data that are freely available on Eurostat's website at https://ec.europa.eu/eurostat together with a range of online articles in *Statistics Explained*.

Editor

Edward Cook
Eurostat, Unit E1 — Agriculture and fisheries

Contact details

Eurostat
Bâtiment Joseph Bech
5, rue Alphonse Weicker
2721 Luxembourg
E-mail: estat-user-support@ec.europa.eu

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This publication was produced by Giovanni Albertone, Simon Allen and Andrew Redpath — INFORMA s.à r.l.

For more information please consult

Eurostat's website: https://ec.europa.eu/eurostat
Statistics Explained: https://ec.europa.eu/eurostat/statistics-explained

Acknowledgements

The editor of this publication would like to thank colleagues in Eurostat and in the Publications Office of the EU who were involved in its preparation.

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Introduction

Introduction

Eurostat is the statistical office of the European Union (EU) situated in Luxembourg. Its mission is to provide high quality statistics and data on Europe. Key information on the EU's economy, society and environment may be of interest to the general public and decision makers.

Key figures on the European food chain describes the EU's food chain, from primary production in agriculture and fisheries through to consumption. For most datasets, statistics are available until 2019 or 2020. As a consequence, only initial findings of the COVID-19 related impact on the food chain are provided. The full scale of the impact of the crisis will be revealed at a later date, not only when the pandemic has come to an end, but also when more recent data become available for a full range of statistics.

Structure of the publication

Key figures on the European food chain provides users of official statistics with an overview of the wealth of information that is available on Eurostat's website and within its online databases concerning the food chain.

The publication groups together distinct parts:

- It starts with an overview of agriculture and fisheries. While the main focus is on the production of agricultural and fishery products, this section also includes information on employment in these activities, as well as the use of land for agriculture and the size of the fishing fleet.
- It then moves on to downstream activities, such as the processing, wholesaling, retailing and serving of food and beverages. It also includes chapters concerning the import and export of agricultural products, food and beverages, as well as their transport. It brings the food chain to its end, looking at consumption.
- The publication finishes with one chapter looking at a selection of environmental issues related to various stages of the food chain, including pesticide use and greenhouse gas emissions in agriculture, as well as waste generation.

Whilst this publication provides a concise overview of the EU's food chain, a number of QR codes have also been included; these give links to more detailed analysis in the form of Statistics Explained articles on Eurostat's website.

Data extraction and coverage

Data extraction

The statistical data presented in this publication were generally extracted in October 2021. Data for Chapter 3 on agricultural output value and economic performance were extracted in mid-November 2021.

Spatial data coverage

This publication presents information for the **EU** (a sum/average covering the 27 Member States of the EU) as well as the individual **EU Member States** and the four **EFTA countries**. The order of the Member States and EFTA countries in the illustrations usually reflects their ranking according to the values for (one of) the indicator(s) illustrated.

The map presented on the inside of the cover identifies the EU Member States and the EFTA countries, as well as pinpointing their capital cities.

Codes for EU Member States and EFTA countries

BE Belgium
BG Bulgaria
CZ Czechia
DK Denmark
DE Germany
EE Estonia
IE Ireland
EL Greece
ES Spain
FR France
HR Croatia
IT Italy
CY Cyprus
LV Latvia
LT Lithuania
LU Luxembourg
HU Hungary
MT Malta
NL Netherlands
AT Austria
PL Poland
PT Portugal
RO Romania
SI Slovenia
SK Slovakia
FI Finland
SE Sweden

IS Iceland
LI Liechtenstein
NO Norway
CH Switzerland

Temporal data coverage

If data for a reference year (or reference period) are not available for the EU, a particular Member State or EFTA country, then efforts have been made to complete the coverage using data for recent previous reference years (these exceptions are footnoted). Particular attention should be paid to these deviations when the standard reference year is 2020, as for some indicators — particularly those impacted by the COVID-19 pandemic — large changes in 2020 mean that earlier data may not be a good proxy for missing 2020 data.

Economic activity coverage

The statistical classification of economic activities in the European Community (NACE Rev. 2) is used to define economic activities. Within this publication, the following terms related to economic activities are applied, all based on the NACE Rev. 2 classification.

Agriculture, forestry and fishing — Section A

- Agriculture (officially crop and animal production, hunting and related service activities) — Division 01
- Fishing and aquaculture — Division 03

Food and beverage (F&B) processing

- Manufacture of food products — Division 10
- Manufacture of beverages — Division 11

Wholesaling, retailing and serving of food and beverages (F&B)

- F&B wholesaling (includes tobacco wholesaling)
  - F&B wholesale agents — Class 46.17
  - F&B wholesale resellers — Group 46.3

- F&B retailing (includes tobacco retailing)
  - Non-specialised in-store F&B retail — Class 47.11
  - Specialised in-store F&B retail — Group 47.2
  - F&B retail via stalls and markets — Class 47.81
- F&B serving (includes restaurants, bars, cafés and other food and beverage outlets) — Division 56

In Chapter 5, data for F&B processing are compared with the manufacturing total, which is defined in NACE as Section C. In Chapter 8, data for the wholesaling, retailing and serving of F&B are compared with the total for non-financial services, which is defined as NACE Sections G to J and L to N and Division 95.

For more information about the NACE Rev. 2 classification, please refer to: https://ec.europa.eu/eurostat/web/nace-rev2/overview.

Notes and flags

Notes and flags are means of explaining and defining specific characteristics of particular data. In this publication, these have been restricted to the main notes required for interpretation of the data and to highlight when data for one year has been replaced with data for another. Where data for a particular indicator are not shown in individual illustrations this is because the required data are not available or are confidential. A full set of notes and flags are available on Eurostat's website via the online data code(s).

Accessing European statistics

The simplest way to obtain Eurostat's wide range of statistical information is through its website (https://ec.europa.eu/eurostat). Eurostat provides users with free access to its databases and its publications in portable document format (PDF). The website is updated daily and presents the latest and most comprehensive statistical information available on the EU, its Member States, the EFTA countries, as well as enlargement countries (for some datasets information may be provided for a wider range of non-member countries).

Eurostat online data codes, such as ef_lus_main, allow easy access to the most recent data on Eurostat's website (https://ec.europa.eu/eurostat/data/database). In this publication these online data codes are given as part of the source below each illustration.

Some of the indicators presented in this publication are relatively complex. Statistics Explained provides a comprehensive online glossary with definitions for a broad range of statistical indicators, concepts and terms; it is organised under thematic headings (https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Thematic_glossaries).

1 Farms and farm labour force

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16 SE
14 CY

Farmland

Farms covered 47 % of the total land area in 2016

Land belonging to farms

(% share of total land area, 2016)

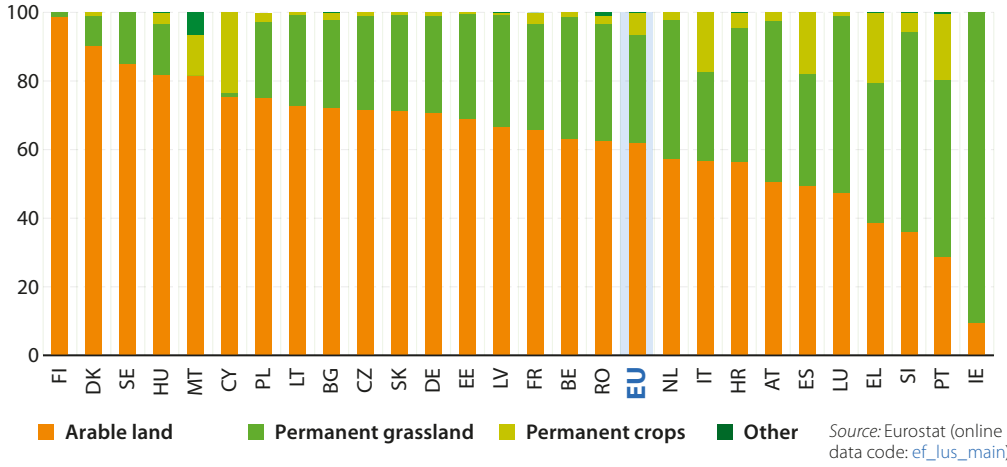
Source: Eurostat (online data codes: ef_lus_main and reg_area3)

Farming is about growing crops and raising livestock. It provides key primary ingredients for food and drink. Statistics on farmland and farms are taken from the 2016 farm structure survey. This survey is carried out every 3-4 years to identify structural changes. During 2020 a global agricultural census took place; consolidated results for the EU are expected during the second half of 2022.

Farms covered 191.9 million hectares of land in the EU in 2016, equivalent to 47 % of the total land area. This share of farm area within the total land area ranged from less than one fifth in Cyprus, Sweden and Finland to close to two thirds in Austria, Hungary and Denmark and reached three quarters in Ireland.

Farm land use

(% share of total utilised agricultural area, 2016)



Source: Eurostat (online data code: ef_lus_main)

More than four fifths (81.6 %) of the farm area in the EU was used for agricultural production in 2016, a total of 156.7 million hectares; this is known as the utilised agricultural area. The remaining share of the EU's farm area was either wooded areas (14.0 % of the farm area) or land unsuitable for production (4.3 %), for example that covered by buildings, roads and water areas.

France and Spain had the largest utilised agricultural areas in the EU in 2016, 17.8 % and 14.8 % respectively of the EU total.

More than three fifths (62.0 %) of the EU's utilised agricultural area was arable land used to produce crops for human and animal consumption. Permanent grassland accounted for almost one third (31.2 %) of the utilised agricultural area and was mainly used to provide further fodder and forage for animals. The remaining share was used almost exclusively for permanent crops (6.7 %) such as fruit, olives and grapes.

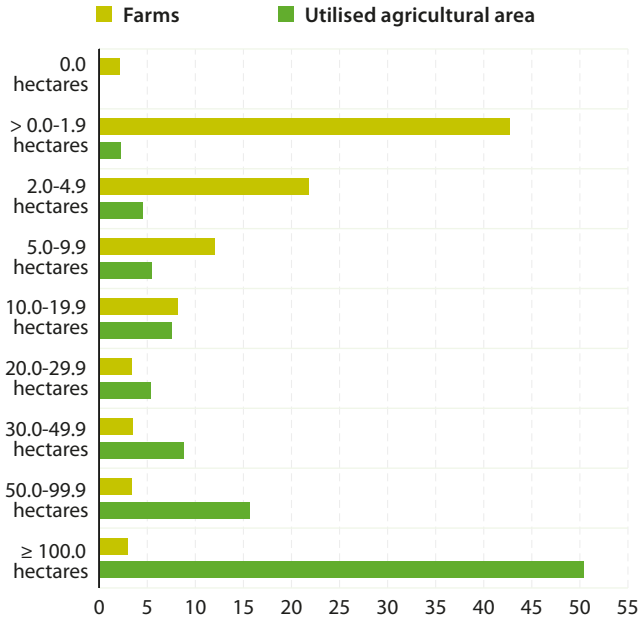
Farms

Distribution of farms and farmland by farm size

(% share of total, EU, 2016)

There were 10.3 million agricultural holdings (simply referred to as farms) in the EU in 2016. One third (33.3 %) of these were located in Romania, with more than one tenth in Poland (13.7 %) and Italy (11.1 %) and just under one tenth (9.2 %) in Spain.

The average (mean) size of a farm in the EU in 2016 was 15.2 hectares. However, two thirds of the EU's farms were less than 5 hectares in size and only one tenth of the farms in the EU had 30 hectares or more. The largest size category of farms, those with at least 100 hectares, accounted for 3.0 % of the total number of farms, but collectively had around half (50.4 %) of the total area used for agricultural production in the EU. As such, there were very many semi-subsistence farms in the EU and only a few very large ones.

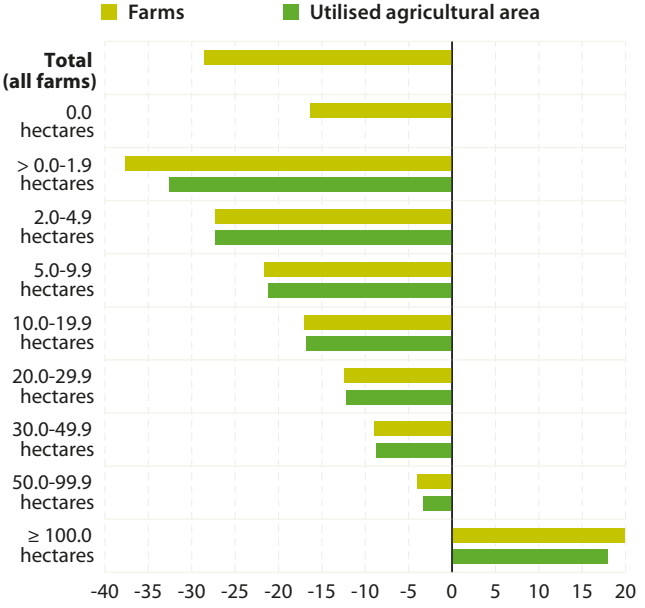


Source: Eurostat (online data code: ef_m_farmleg)

Overall change in farms and farmland

(%, EU, 2005-2016)

There were about 4.1 million fewer farms in the EU in 2016 than in 2005, a decrease of 28 % ([1]). The vast majority of the decrease in farm numbers concerned farms less than 5 hectares in size; there were 3.5 million fewer farms in this category during the period under consideration. The only category of farms for which an increase in farm numbers was observed was for farms with at least 100 hectares. As the overall area used for agricultural production in the EU hardly changed between 2005 and 2016 (a decrease of 0.2 %), the falling number of farms among all size categories except for the largest reflects mergers or takeovers of farms.



Note: 2005 includes 2007 data for HR.

Source: Eurostat (online data code: ef_m_farmleg)

([1]) Some of this observed change may reflect methodological difference in the statistics for 2005 and 2016.

Farm specialisations

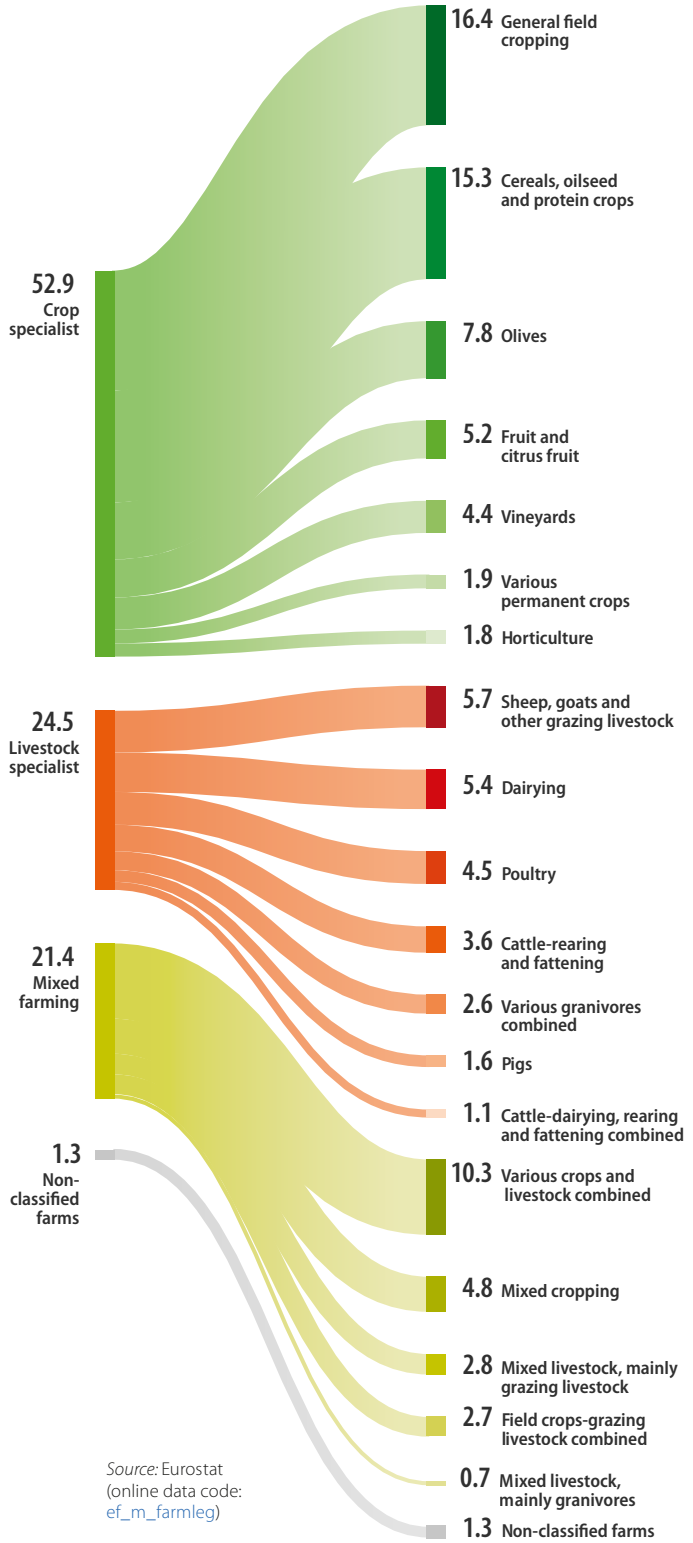
(% share of all farms, EU, 2016)

About one half (52.9 %) of all farms in 2016 were categorised as specialist crop farms: just under one third (31.7 %) of all farms were specialised in field cropping, about one fifth (19.3 %) in permanent crops and a small share (1.8 %) in horticulture.

Another one quarter (24.5 %) of the EU's farms were specialist livestock farms. Specialisations in sheep, goats and other grazing livestock were the most common (5.7 % of all farms), followed by dairying (5.4 %) and poultry (4.5 %).

Mixed farming comprises farms with crops and livestock, farms with various types of crops and farms with various types of livestock. As a whole, mixed farms accounted for just over one fifth (21.4 %) of all farms in the EU.

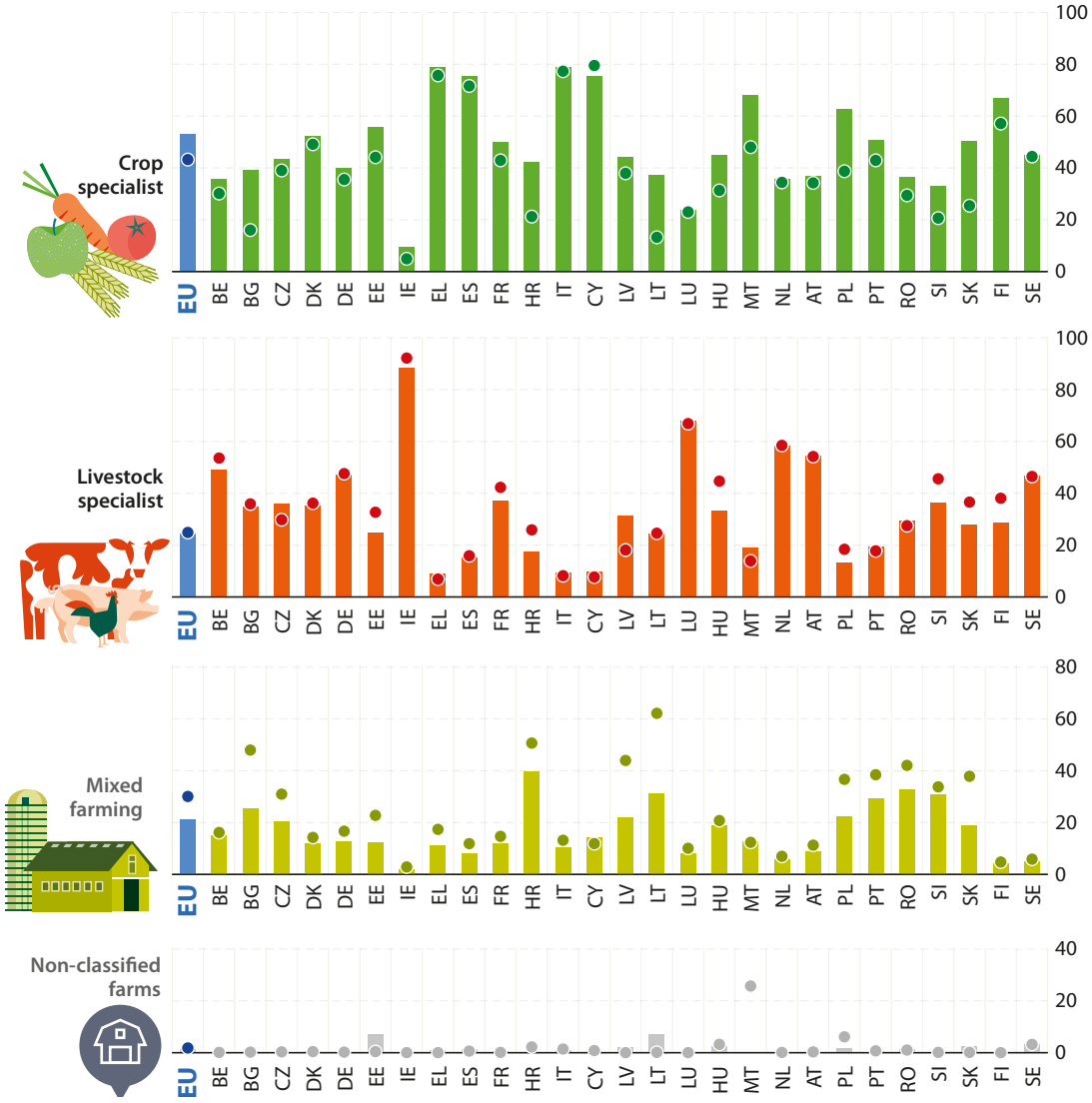
Some farms (1.3 % of the total) were 'non-classified farms'.



Source: Eurostat (online data code: ef_m_farmleg)

Change in farm specialisations

(% share of all farms, 2005 and 2016)



Between 2005 and 2016, in terms of farm numbers there was a notable move away from mixed farms towards crop specialists: the proportion of livestock specialists remained stable.

The largest increases in the share of crop specialists between 2005 and 2016 were observed in Slovakia, Lithuania, Poland and Bulgaria. Cyprus was the only Member State to record a fall in its share of crop specialists (although from a very high level, as Cyprus had the highest share of crop specialists in 2005).

● **2005**
■ **2016**

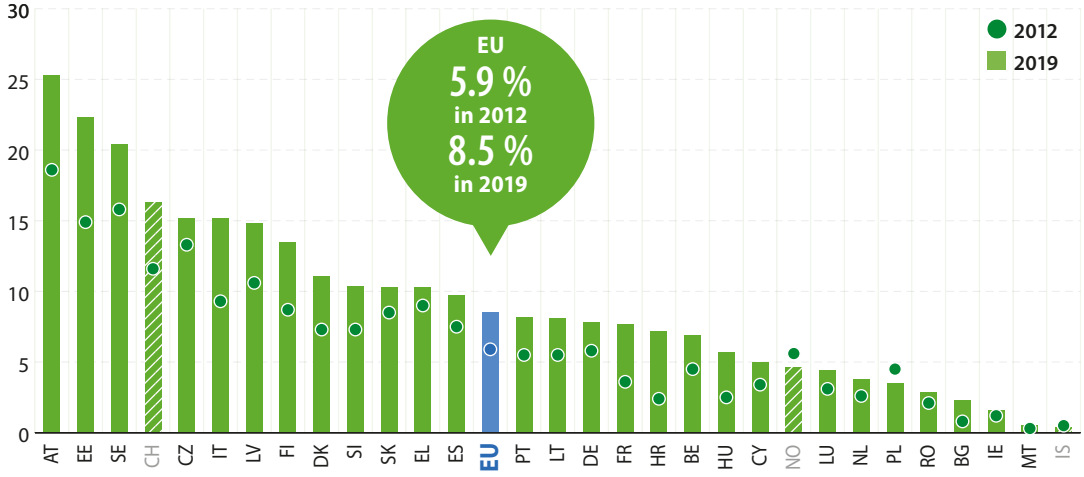
Note: EU, 2005 includes 2007 data for HR. HR: 2007 instead of 2005.

Source: Eurostat (online data code: ef_m_farmleg)

Organic farming

Organic area

(% share of total utilised agricultural area, 2012 and 2019)



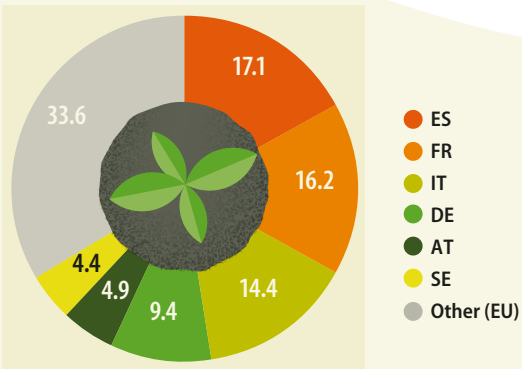
Note: includes fully converted areas and areas under conversion.
IS: 2013 instead of 2012.

Source: Eurostat (online data code: org_cropar)

Organic farming is a method that aims to use natural substances and processes and to do so in a more sustainable way than conventional farming. The EU's *Farm to Fork Strategy* set an objective that at least 25 % of the EU's agricultural land should be farmed using organic processes by 2030.

In 2019, the area used for organic agricultural production within the EU was 13.8 million hectares. The total organic area in the EU increased by 4.3 million hectares between 2012 and 2019, equivalent to a rise of almost one half (45.9 %). The share of the total utilised agricultural area that was organic increased from 5.9 % in 2012 to 8.5 % in 2019. During this period, the share of the agricultural area used for organic farming increased in all EU Member States except for Poland.

In 2019, the highest shares of organic farm areas within the total utilised agricultural area were in Austria (25.3 %), Estonia (22.3 %) and Sweden (20.4 %). By contrast, the share of organic farming was below 5.0 % in seven EU Member States, with the lowest shares in Ireland (1.6 %) and Malta (0.5 %).



Share of EU organic area

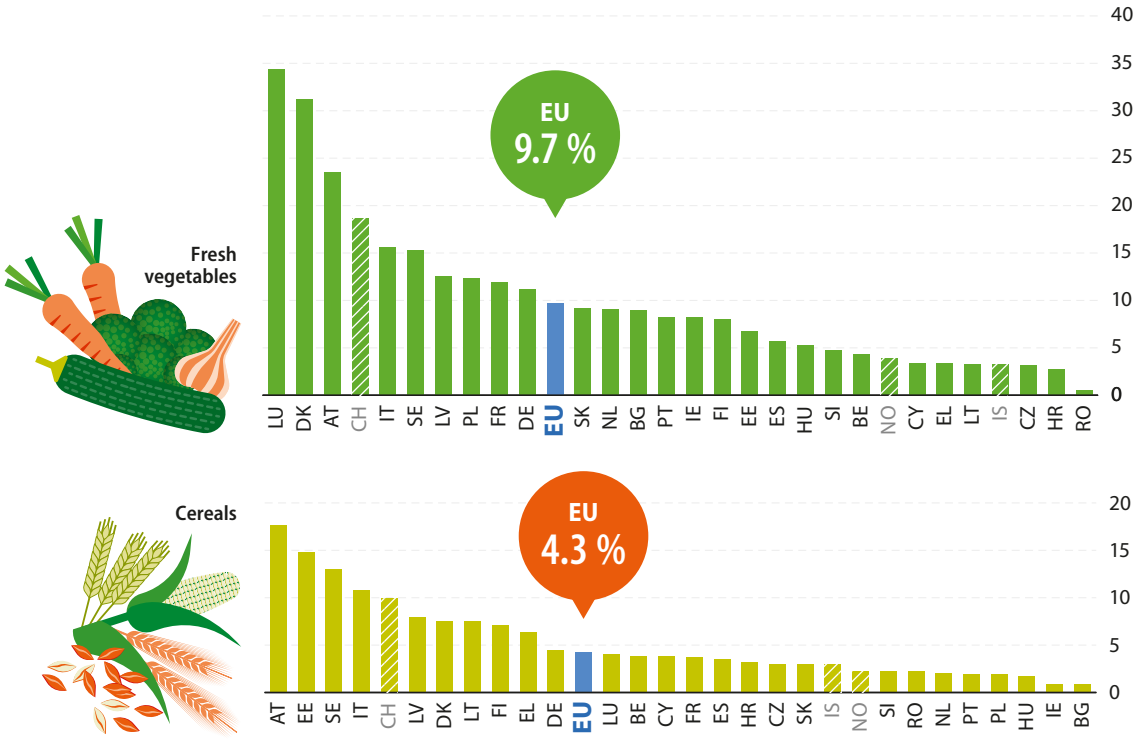
(%, 2019)

Nearly half (47.7 %) of the EU's total organic area in 2019 was located in three EU Member States: Spain (17.1 %), France (16.2 %) and Italy (14.4 %). The next largest shares were in Germany, Austria and Sweden.

Source: Eurostat (online data code: org_cropar)

Organic area for fresh vegetables and cereals

(% share of utilised agricultural area, 2019)



Note: vegetables including melons and strawberries. MT: not available.

Source: Eurostat (online data codes: org_cropar and apro_cpsh1)

Cereals and fresh vegetables are among the main arable crops, along with root crops, green fodder and industrial crops.

The area used for the organic farming of fresh vegetables in the EU was 205 thousand hectares in 2019, equivalent to 0.1 % of all land used for agricultural production. About one tenth (9.7 %) of the land used for the production of fresh vegetables in the EU was farmed organically. Luxembourg, Denmark and Austria had notably higher shares of organic farming within their total area of land used for growing fresh vegetables.

The area used for the organic farming of cereals in the EU was 2.3 million hectares in 2019, equivalent to 1.4 % of all land used for agricultural production. Some 4.3 % of the land used for the production of cereals in the EU was farmed organically. Austria, Estonia, Sweden and Italy had the highest shares of organic farming within their total area of land used for growing cereals.

Farmers

Age and sex of farm managers

(% share of all farm managers, EU, 2016)

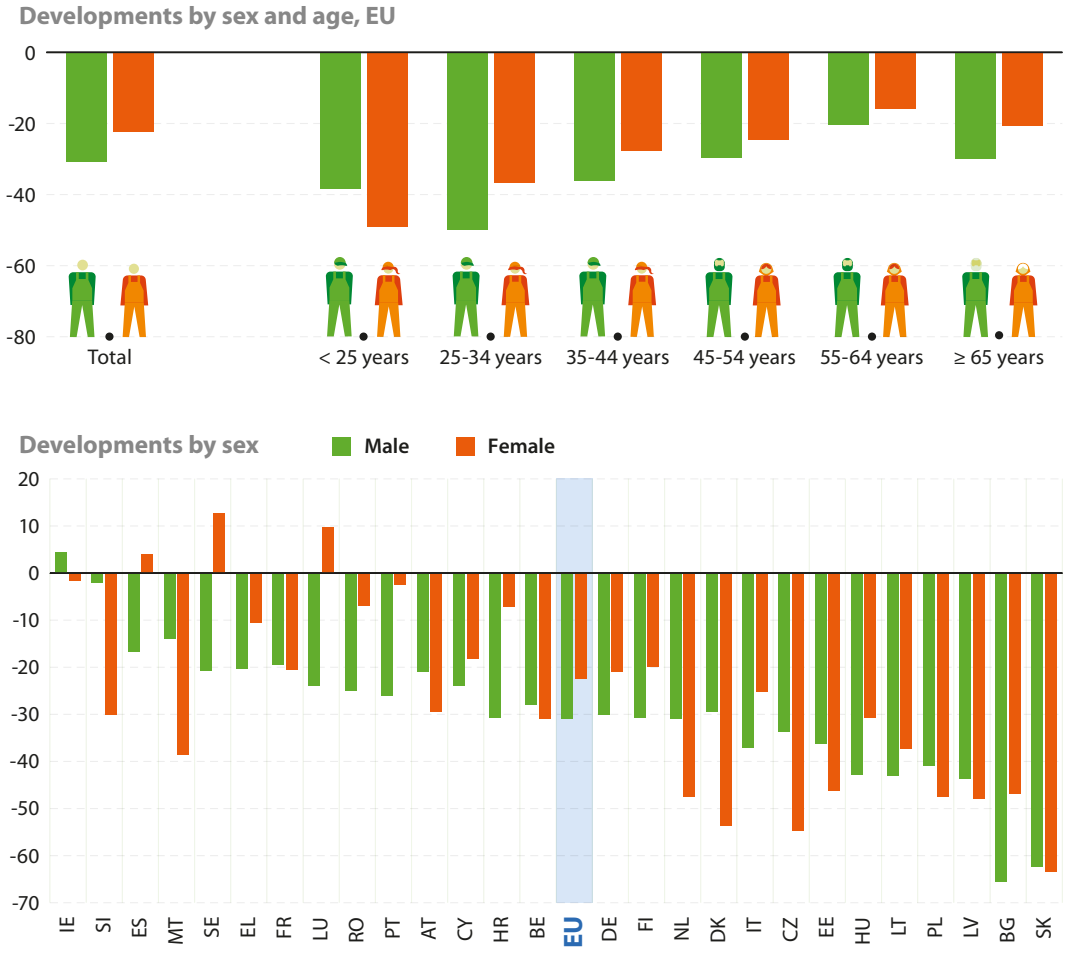
Source: Eurostat (online data code: ef_m_farmang)

Seven in every ten (71.3 %) farm managers on the EU's 10.3 million farms in 2016 were male. A majority (57.9 %) of farm managers were at least 55 years of age, while only about 1 in every 10 (10.7 %) were young farm managers — defined here as those under the age of 40 years.

Older farm managers tended to work on the smallest farms (when measured in economic terms or in relation to their agricultural area), while younger farm managers tended to work on larger farms. Whereas farm managers under 40 years of age accounted for 10.7 % of EU farm managers, they managed 16.1 % of the total utilised agricultural area. By contrast, older farm mangers tended to work on very small (semi-subsistence) and small farms: almost one third (32.8 %) of EU farm managers were aged 65 years or more, together they managed 14.9 % of the total utilised agricultural area.

Overall change in the number of farm managers

(%, 2005-2016)



Note: EU data for 2005 includes 2007 data for HR. Ranked on overall change for both sexes (male and female). HR: 2007-2016.

Source: Eurostat (online data code: ef_m_farmang)

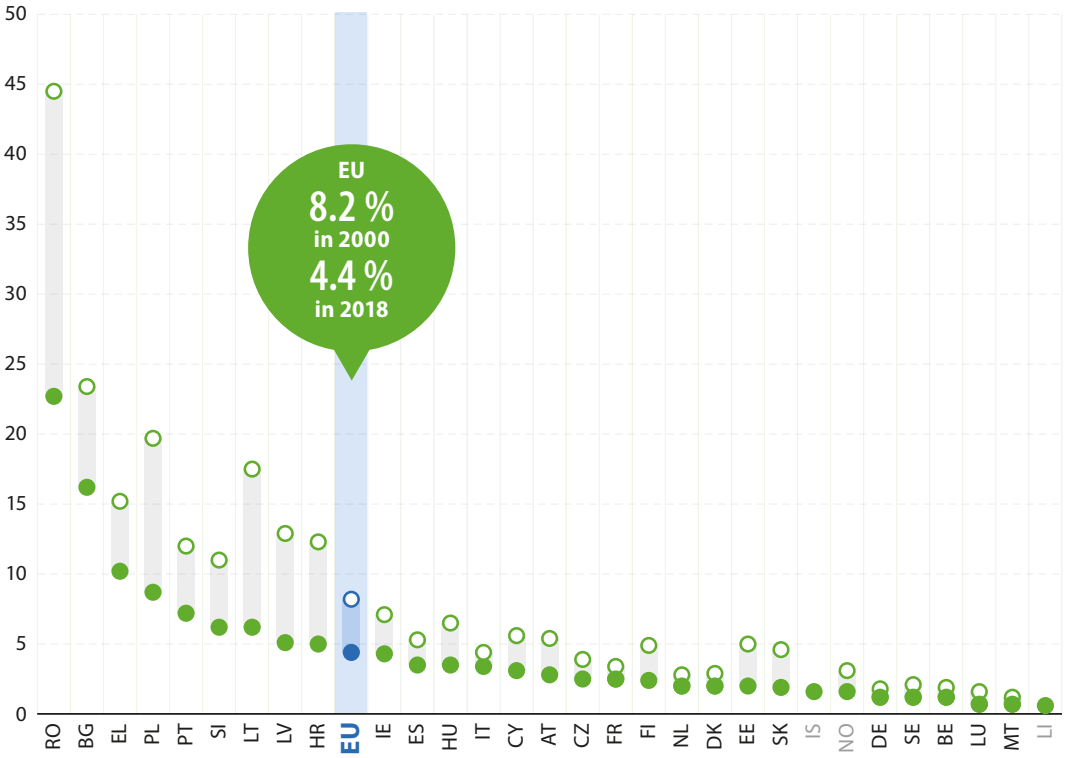
Alongside the decrease in the number of farms, the number of farm managers fell 28.5 % between 2005 and 2016. The number of male farm managers declined at a faster rate (down 30.8 %) than that for female farm managers (down 22.4 %). The number of farm mangers decreased among all age groups, with the largest decreases in relative terms among younger ones: down 47.3 % among those farmer managers aged 25-34 years and down 41.0 % among those farm managers younger than 25 years.

In most of the EU Member States, the overall decline in the number of farm managers ranged from a decrease of 9.4 % in Slovenia to a decrease of 45.7 % in Latvia. The decreases in Bulgaria and Slovakia (down 62.1 % and 62.5 %) were even larger, indicating that the numbers of farm managers (and therefore farms) in these two countries in 2016 were less than half what they had been in 2005. Ireland was an exception, as there was a 3.7 % increase in the number of farm managers.

Farm workforce

Employment in agriculture, hunting and related service activities

(% share of total employment, 2000 and 2019)



○ **2000**
● **2019**

Note: EU, RO, LT, LV, NO, SE and LI, 2018 instead of 2019. IS and LI: 2000, not available.

Source: Eurostat (online data code: nama_10_a64_e)

In 2018, there were 9.1 million people working ([2]) in agriculture (including hunting and related service activities) in the EU, the equivalent of 4.4 % of total employment. As the number of farms in the EU declined, so did agricultural employment. Agriculture's share of employment in the EU fell from 8.2 % in 2000 to 4.4 % in 2018.

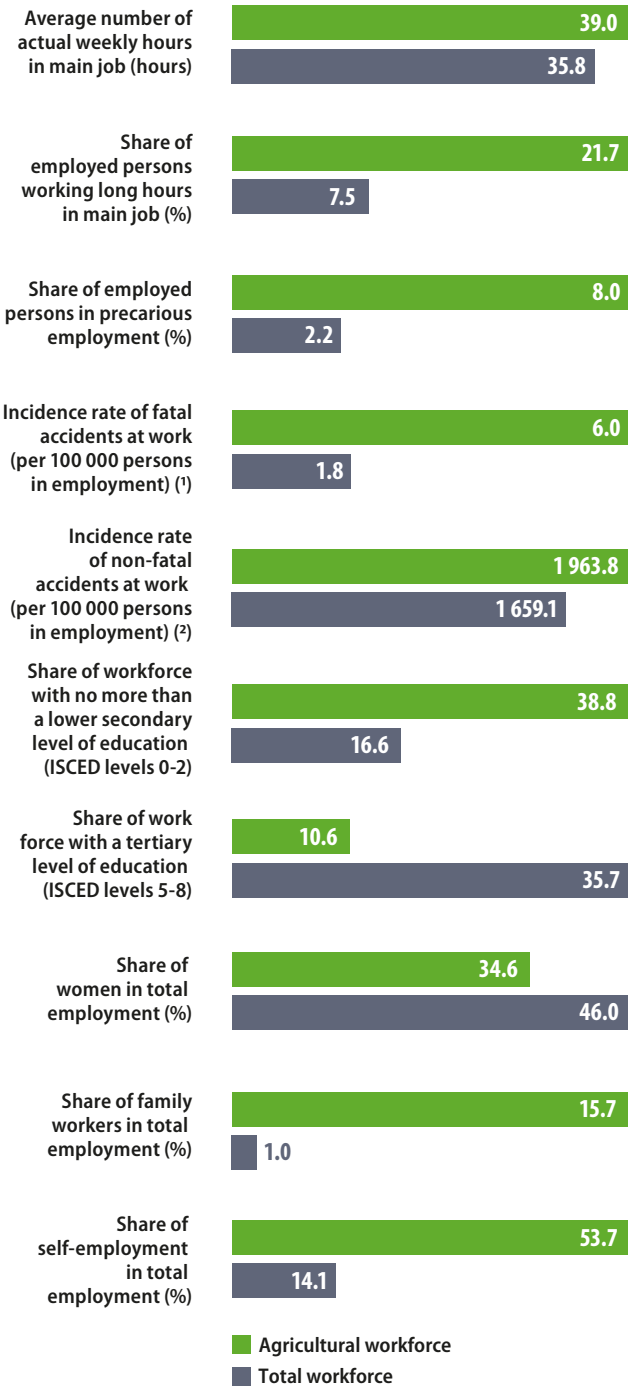
Agriculture is a particularly big employer in Romania, accounting for more than one in every five persons employed (22.7 %) in 2018. Agriculture also accounted for more than one tenth of total employment in 2019 in Bulgaria and Greece. By contrast, its share was less than 2.0 % in 2019 in Slovakia, Germany, Sweden (2018 data), Belgium, Luxembourg and Malta.

As a share of total employment, the largest fall in agricultural employment since 2000 was observed in Romania (down 21.8 percentage points; 2000-2018).

([2]) Note that simple counts of employed persons do not take into account the extent of part-time work in different economic activities.

Agricultural workforce characteristics

(EU, 2020)



In many respects, the agricultural workforce differs from the overall workforce in the EU. Average working hours are longer than typical, reaching 39.0 hours in agriculture in 2020, compared with an average of 35.8 hours. This is reinforced by the fact that 21.7 % of people working in agriculture worked long hours (49 hours or more per week), nearly three times the average share (7.5 %) for all persons in employment.

In 2020, precarious employment — having a short-term contract of up to three months — was 3.6 times as common in the EU's agricultural workforce (8.0 %) as in all activities (2.2 %).

As well as differences concerning working conditions, the characteristics of agricultural workers in the EU were also atypical. The share with a low level of education in 2020 was relatively high (38.8 %), more than double the average for all persons in employment (16.6 %), while the share with a high level of education was relatively low in agriculture, 10.6 % compared with 35.7 % for the whole workforce.

In terms of working status, agriculture differed in two respects from the overall workforce in the EU. The shares of family workers and of self-employment were both considerably higher in agriculture, 15.7 % (compared with an average of 1.0 %) for the former and 53.7 % (compared with an average of 14.1 %) for the latter.

Note: figures shown cover all persons aged 15 years and over in employment.

(1) 2018. Based on accidents that lead to the death of a victim within one year of the accident. Including forestry and fishing activities.

(2) 2018. Based on accidents that lead to more than three calendar days of absence from work. Including forestry and fishing activities.

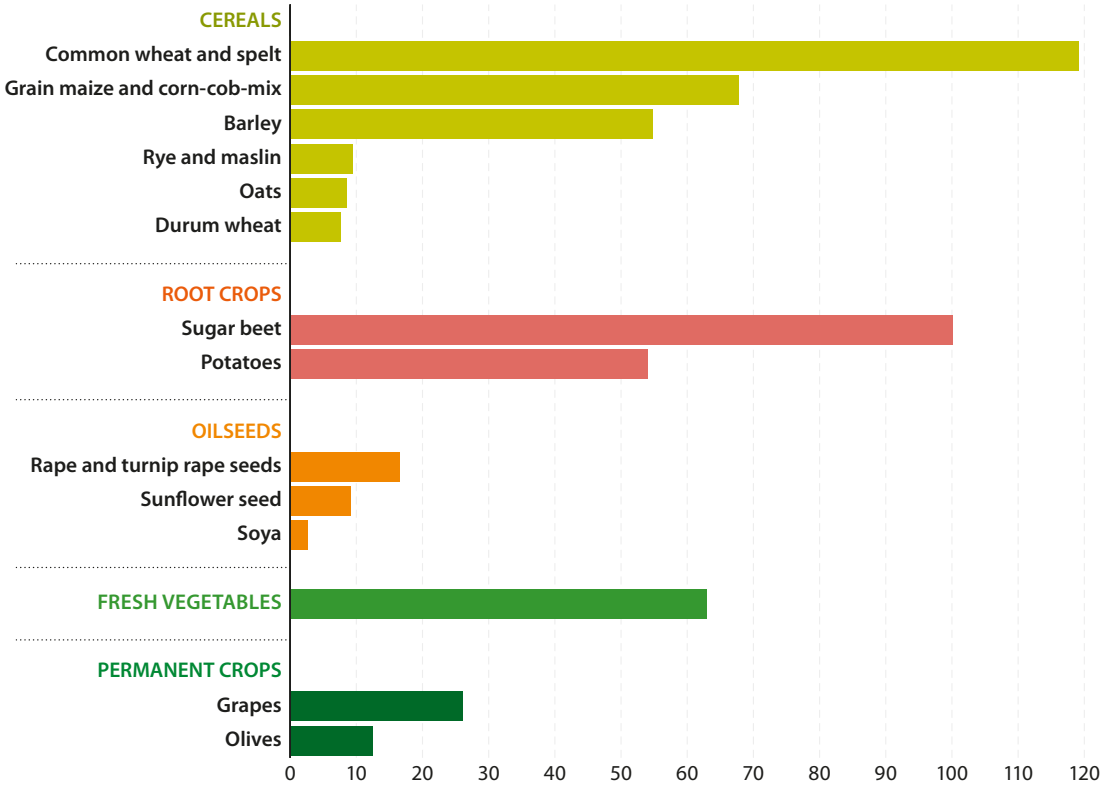
Source: Eurostat (online data codes: lfsa_ewhan2, lfsa_qoe_3a2, lfsa_qoe_4ax1r2, hsw_n2_02, hsw_n2_01, lfsa_egised, lfsa_egaps, lfsa_egan2 and lfsa_esgan2)

2 Agricultural products

Crop production

Production of selected crops

(million tonnes, EU, 2020)



The EU's *Farm to Fork Strategy* aims to encourage a more sustainable and resilient form of farming, whereby consumers feel closer to the food that they eat, for example choosing fresher, locally farmed, less processed and/or sustainably sourced food. The strategy aims to reward farmers and other operators in the food chain who have undergone this transition to sustainable practices.

Crop production is sensitive to weather conditions throughout the growing season and at harvest, as well as to other factors like soil quality, nutrient availability and pests; they impact on both yields (the quantity of crops harvested per hectare of cultivated land) and quality. However, as the EU covers a large area with a wide range of climates the impact of poor conditions on the harvest in one region may be offset by better conditions in another.

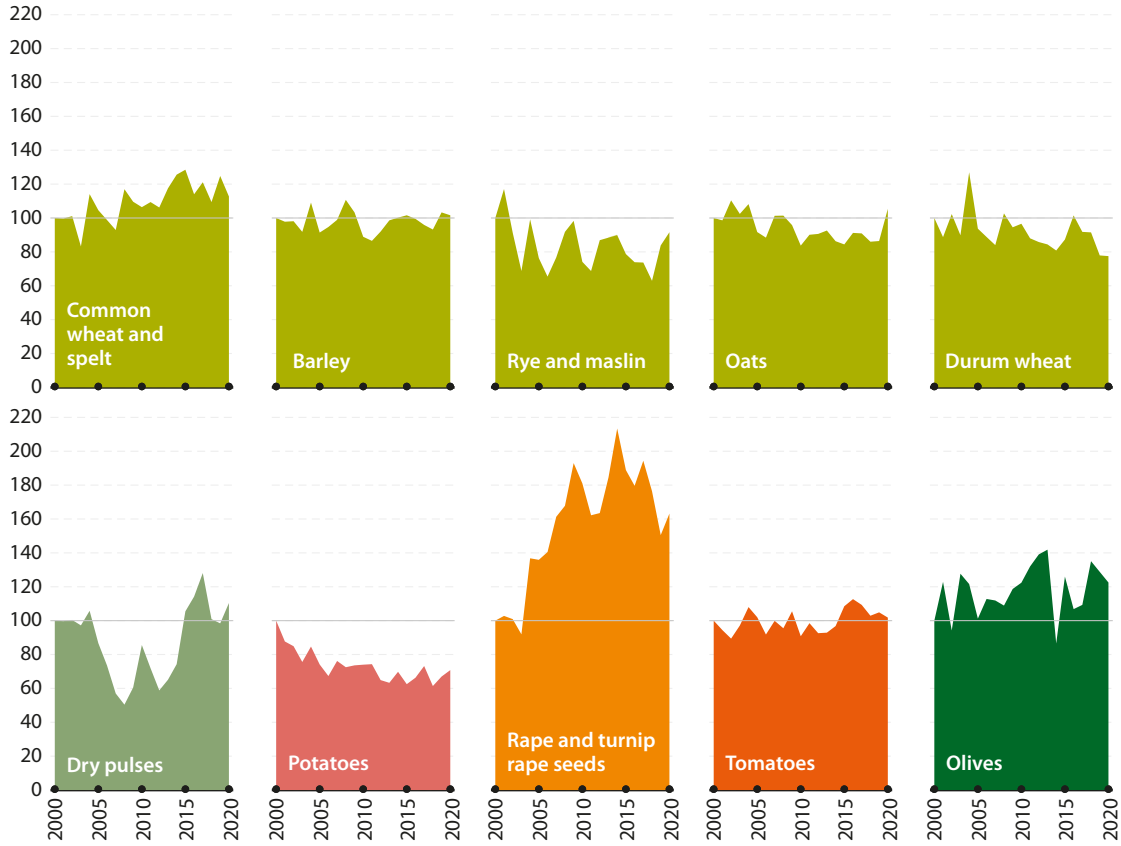
In 2020, some of the principal crops harvested in the EU — in quantity terms — included common wheat and spelt (119.1 million tonnes), sugar beet (100.1 million tonnes), grain maize and corn-cob mix (67.8 million tonnes), fresh vegetables (62.9 million tonnes; note this figure excludes the harvested production of potatoes), barley (54.7 million tonnes) and potatoes (54.0 million tonnes).

Note: data are shown for selected crops; the list is not exhaustive. Fresh vegetables include melons and strawberries.

Source: Eurostat (online data code: apro_cpnh1)

Developments of crop production

(2000 = 100 based on tonnes, EU, 2000-2020)



Note: estimates made for the purpose of this publication. Data are shown for selected crops that have a relatively complete time series for the EU; some gaps have been filled using interpolation.

Source: Eurostat (online data codes: apro_cpnh1 and apro_cpsh1)

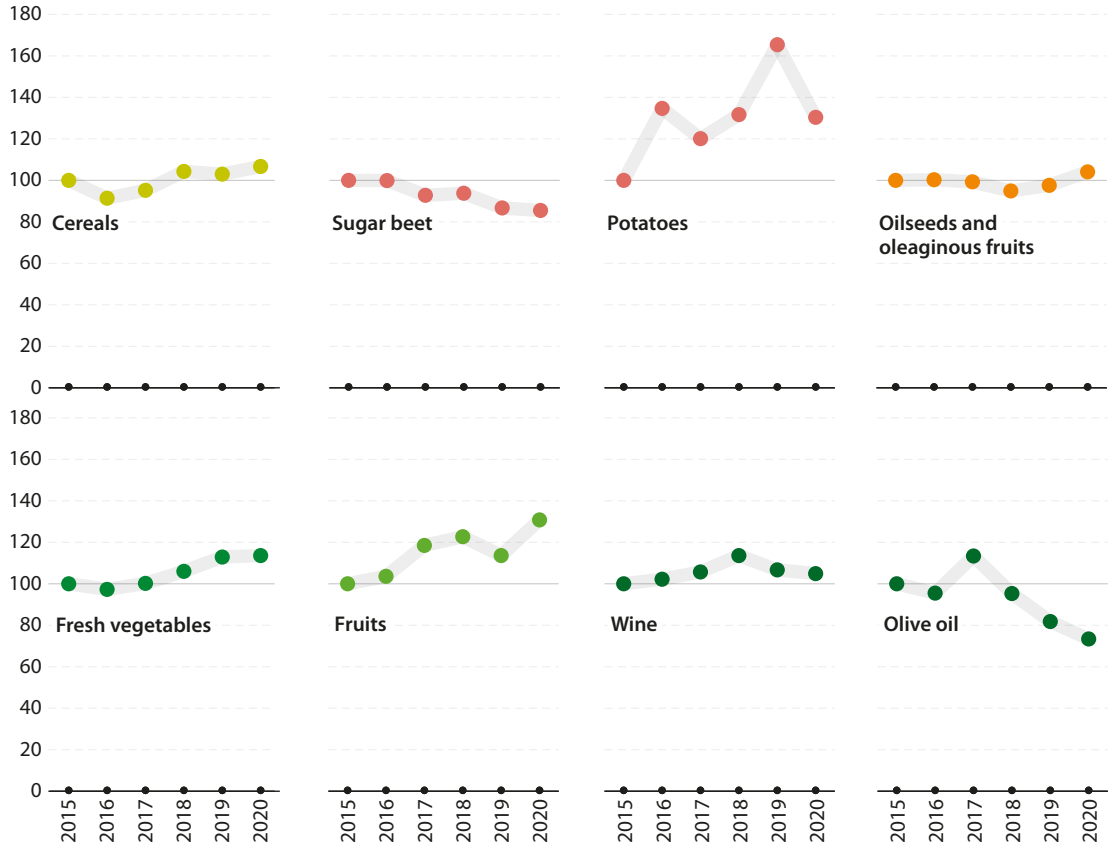
When making decisions on which crops to sow every year, farmers have to think, among other issues, about crop rotations, anticipated profitability, whether there is a market for the crop, whether they have the right equipment and whether there have been policy changes. These decisions also have an impact on the level of production of specific crops from one year to the next.

This annual decision-making is less relevant for farmers of permanent crops, like olives, apples and grapes. However, there can be strong annual fluctuations in production levels, not only because of weather conditions and disease but also because olive trees and some fruit trees have a biennial bearing: a heavy load is generally followed by a lighter one.

Overall during the period from 2000 to 2020, there was a considerable increase in the level of EU harvested production for rape and turnip rape seeds, while production was also notably higher for common wheat and spelt. By contrast, the EU's harvested production of potatoes followed a downward development during the last two decades, with the production of durum wheat and of rye and maslin also falling.

Developments of output price indices for crop products

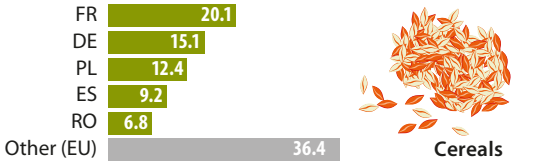
(2015 = 100, EU, 2015-2020)

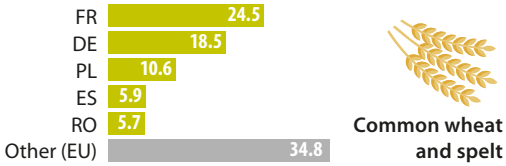


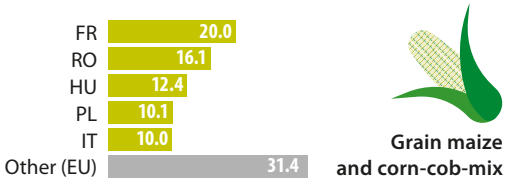
The important role of climatic and other natural conditions on the quantity and quality of harvested production is usually extended, as they tend to have a knock-on impact on prices to balance supply and demand. During the whole of the period 2015-2020, the largest output (or producer) price fluctuations in the EU (among those crops for which information is shown) were recorded for potatoes, olive oil and fruits, whereas output prices of oilseeds and oleaginous fruits were particularly stable.

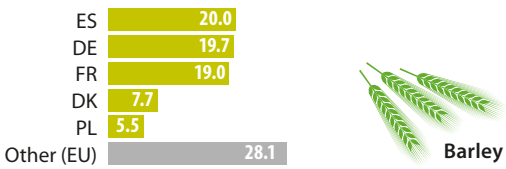
In 2020, the output price of cereals in the EU rose by 3.7 %, in part reflecting the lower supply of cereals (compared with 2019). Higher price increases were recorded for oilseeds and oleaginous fruits (up 6.7 %) and for fruits (up 15.1 %). By contrast, producer prices for olive oil fell by 10.3 % in 2020, with an even larger reduction in the price of potatoes (down 21.2 %).

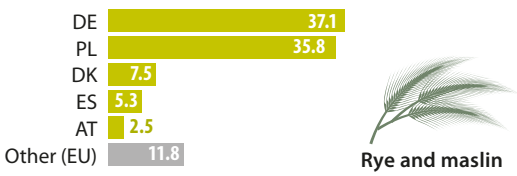
Source: Eurostat (online data code: apri_pi15_outa)

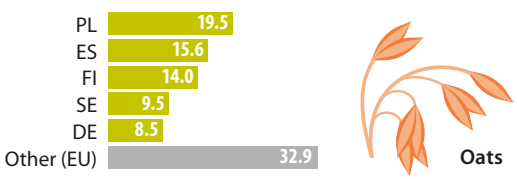


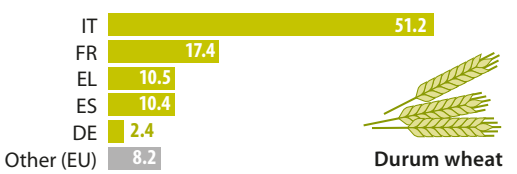


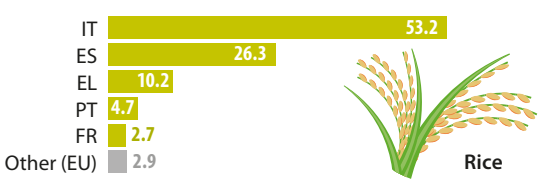












Source: Eurostat (online data code: apro_cpnh1)

Share of EU cereals production

(%, 2020)

Wheat accounts for close to half of the total quantity of cereals grown across the EU each year. The remainder is principally composed of grain maize and corn-cob mix and of barley, with smaller quantities of other cereals such as rye and oats. Based on a limited set of information for 19 EU Members States in 2019, an overall majority of the cereals consumed in the EU were used for animal feed, with the next highest share (close to 30 %) for human consumption; a small quantity of cereals were used as biofuels.

In 2020, the harvested area of cereals across the EU was 52.5 million hectares (or 525 thousand km^2), on which an estimated 286.5 million tonnes of crop was produced. France accounted for just over one fifth (20.1 %) of the EU's cereals production, while Germany (15.1 %) and Poland (12.4 %) were the next largest producers.

Note: due to rounding, the shares do not sum to 100 %.

Source: Eurostat (online data code: apro_cpnh1)

Share of EU production of various types of cereal

(% based on tonnes, 2020)

A majority of the EU's cereals are grown over the extensive plains of France, Germany, Poland and Romania, where largely temperate weather conditions support higher yields. In 2020, the harvested production of durum wheat was principally concentrated in Italy (where it is used in the manufacture of pasta), while the production of rye and maslin (used in the manufacture of bread, vodka and animal fodder) was concentrated in Germany and Poland. The Nordic and Baltic Member States were relatively specialised in the production of oats; these thrive — compared with other cereals — in cooler and wetter conditions. Italy and Spain were specialised in the production of rice.

Share of EU potato production

(%, 2020)

In 2020, the harvested area of potatoes across the EU was 1.5 million hectares, on which 54.0 million tonnes of crop was produced; note that the harvested production of potatoes includes seed potatoes, in other words, those potatoes that are grown to be planted to produce the following year's crop.

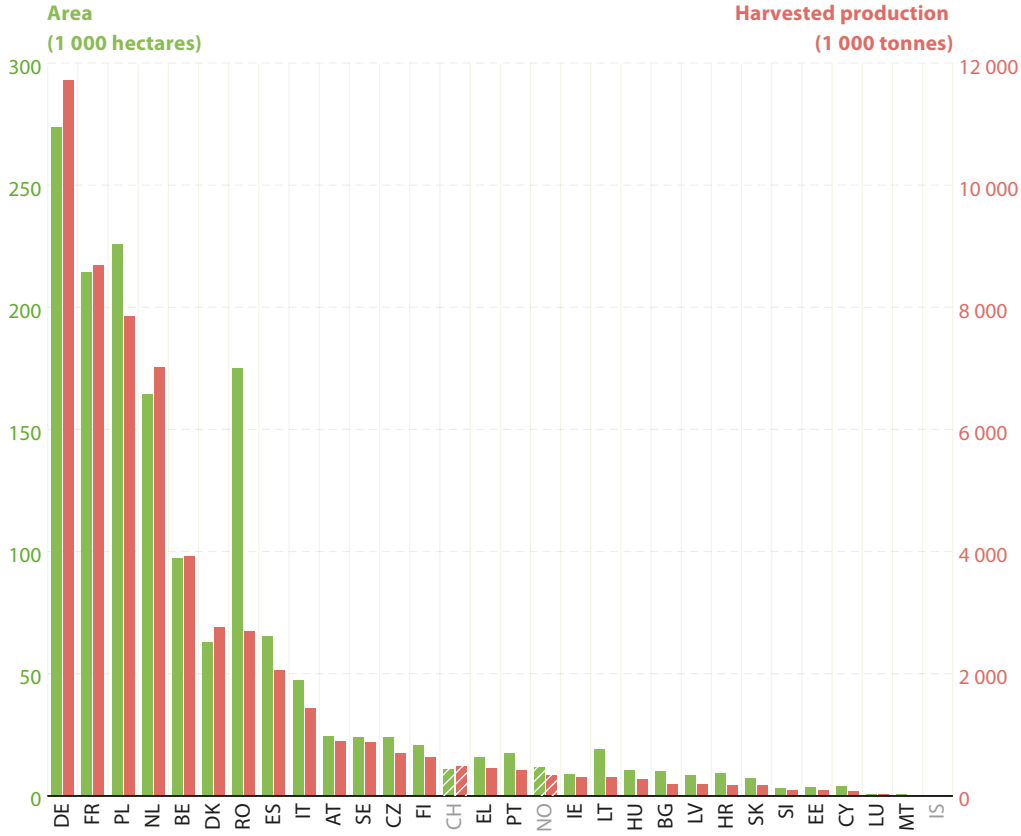
Germany (21.7 %), France (16.1 %), Poland (14.5 %) and the Netherlands (13.0 %) together accounted for approximately two thirds of the EU's potato harvest in 2020. The harvested production of potatoes in Germany was 11.7 million tonnes in 2020, which was 10.5 % higher than in 2019.

Note: due to rounding, the shares do not sum to 100 %.

Source: Eurostat (online data code: apro_cpnh1)

Production of potatoes

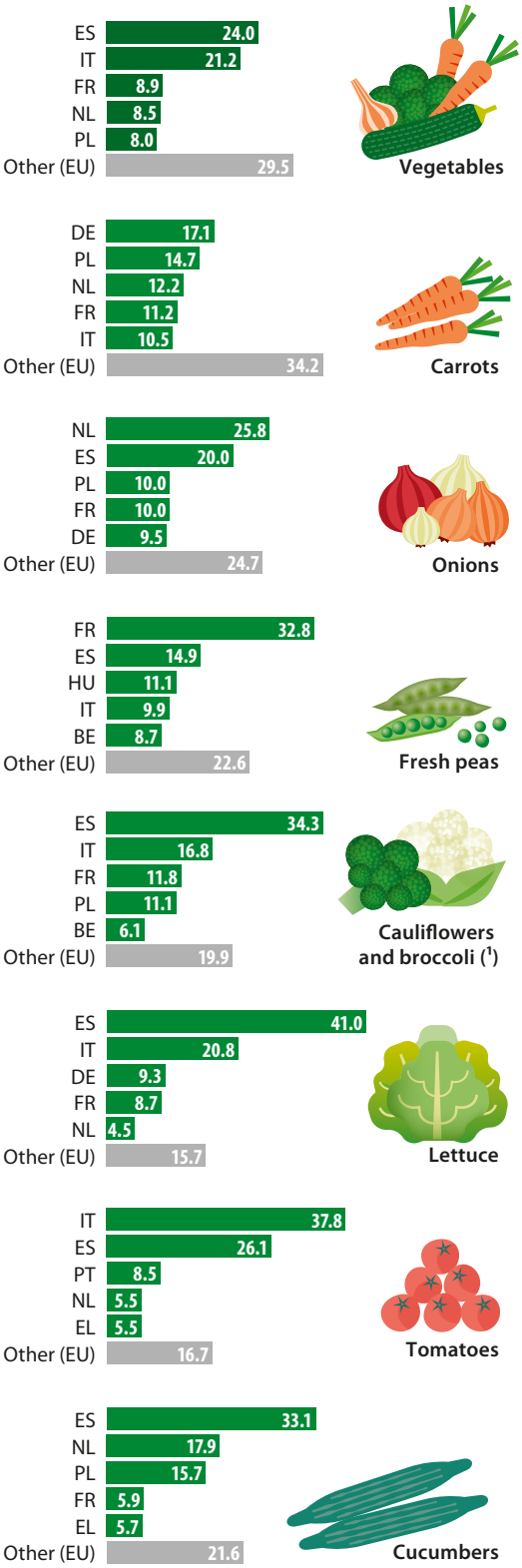
(2020)



The highest apparent yields — at least 40 tonnes of potatoes per hectare in 2020 — were recorded in a band of EU Member States running from Denmark, through Germany, the Netherlands and Belgium into France.

Note: NO, 2019.

Source: Eurostat (online data code: apro_cpnh1)



Source: Eurostat (online data code: apro_cpnh1)

Share of EU vegetable production

(%, 2020)

In 2020, fresh vegetables were cultivated on 2.1 million hectares of land across the EU, on which 62.9 million tonnes of crop was produced. In 2020, the three most commonly grown fresh vegetables — in quantity terms — were tomatoes (16.5 million tonnes of harvested production), onions (6.6 million tonnes) and carrots (4.7 million tonnes).

Spain was the leading producer of fresh vegetables (24.0 % of the EU's harvested production in 2020), followed by Italy (21.2 %), with none of the remaining EU Member States recording double-digit shares.

Note: including melons and strawberries. Due to rounding, the shares do not sum to 100 %.

Source: Eurostat (online data code: apro_cpnh1)

Share of EU production of various types of vegetable

(% based on tonnes, 2020)

The production of some fresh vegetables is concentrated in a few EU Member States. For example, Italy accounted for more than one third (37.8 %) of the EU's harvested production of tomatoes in 2020, while Spain (26.1 %) had the next highest share. The Netherlands (25.8 % of the EU's harvested production) and Spain (20.0 %) were the principal producers of onions, while Germany (17.1 % of the EU total) and Poland (14.7 %) had the highest shares of the harvested production of carrots.

Note: estimates made for the purpose of this publication.

(1) Excluding EE.

Source: Eurostat (online data code: apro_cpnh1)

30 ES
23 IT
12 PL
9 EL
7 FR
4 RO
3 DE, PT
2 BE, HU, NL
1 BG, AT
0 Others

Share of EU fruit, berries and nuts production

(%, 2020)

The EU produces a wide range of fruit, berries and nuts. An estimated 36.8 million tonnes were harvested in 2020, of which 14.3 million tonnes were pome fruit (apples and pears), 11.4 million tonnes were citrus fruit (such as oranges, satsumas and lemons), 6.5 million were stone fruit (such as peaches, nectarines, apricots, cherries and plums), 2.7 million tonnes were sub-tropical and tropical fruit (such as figs, kiwis, avocadoes and bananas), 1.3 million tonnes were nuts and 0.7 million tonnes were berries.

In 2020, Spain (30.4 %) and Italy (23.2 %) were the main producers of fruit, berries and nuts in the EU but for some specific fruit other EU Member States were key producers.

Note: excluding grapes and strawberries. Due to rounding, the shares do not sum to 100 %.

Source: Eurostat (online data code: apro_cpnh1)

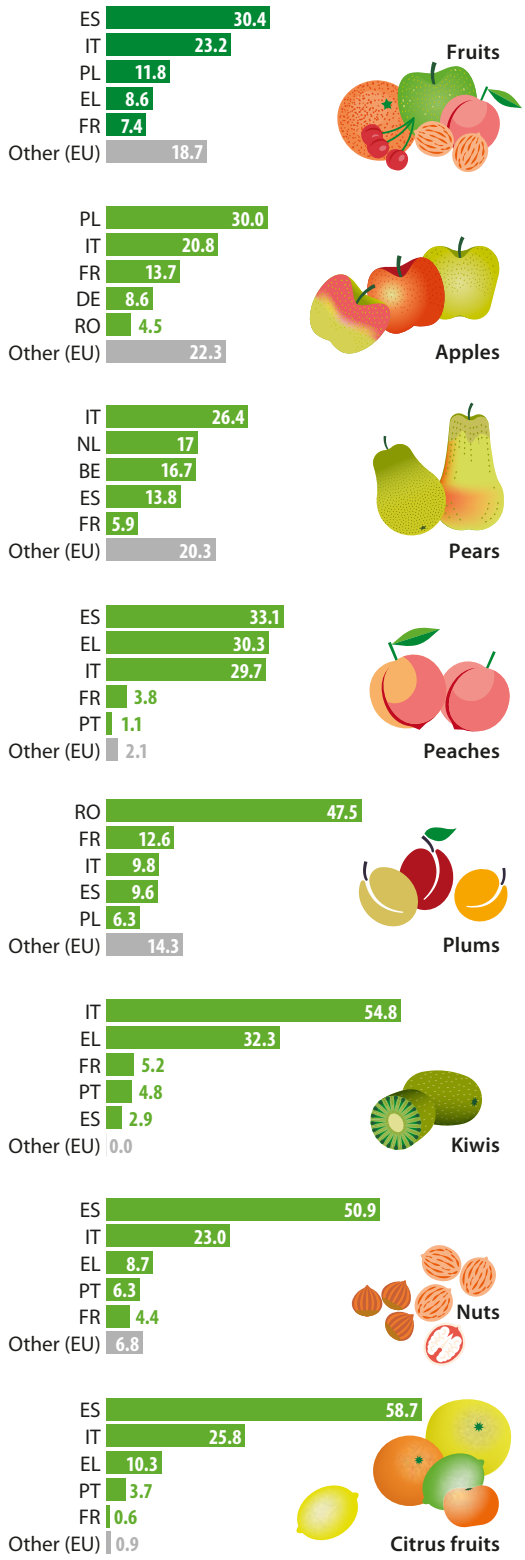
Share of EU production of various types of fruit, berries and nuts

(% based on tonnes, 2020)

Poland (30.0 %) and Italy (20.8 %) together accounted for approximately half of all apples harvested in the EU, while Italy (26.4 %), the Netherlands (17.0 %), Belgium (16.7 %) and Spain (13.8 %) together accounted for almost three quarters of all pears harvested in the EU.

Note: excluding grapes and strawberries.

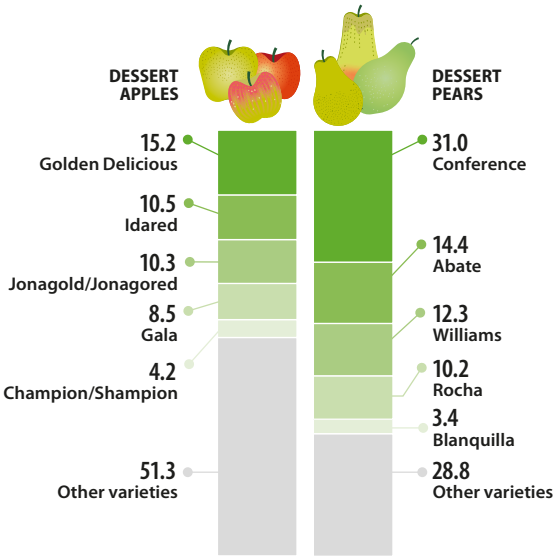
Source: Eurostat (online data code: apro_cpnh1)



Main varieties of apples and pears

(% share of apple/pear orchards, based on area in hectares, EU, 2017)

There are hundreds of different varieties of apples and pears grown in the EU, many of which have been developed to grow in specific conditions; this has allowed farmers to grow apples and pears commercially in almost all of the EU Member States. In 2017, the most common variety of dessert apple grown in the EU was golden delicious (principally harvested in Italy, France and Romania), while the most commonly grown variety of dessert pear was conference (principally harvested in Spain, Belgium and the Netherlands).



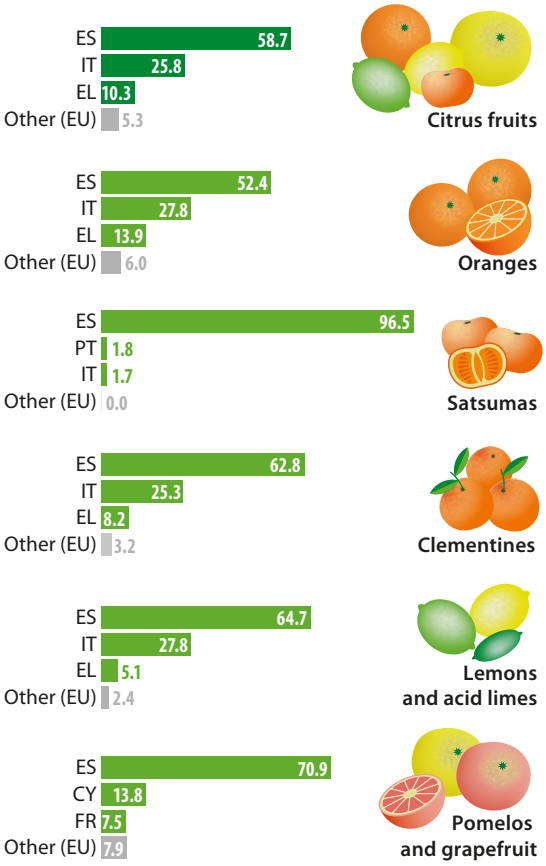
Note: partial data coverage, based on those EU Member States for which data are available.

Source: Eurostat (online data code: orch_apples1)

For more and updated information on crop production, please refer to the Statistics Explained article.

Share of EU production of various types of citrus fruit

(% based on tonnes, 2020)



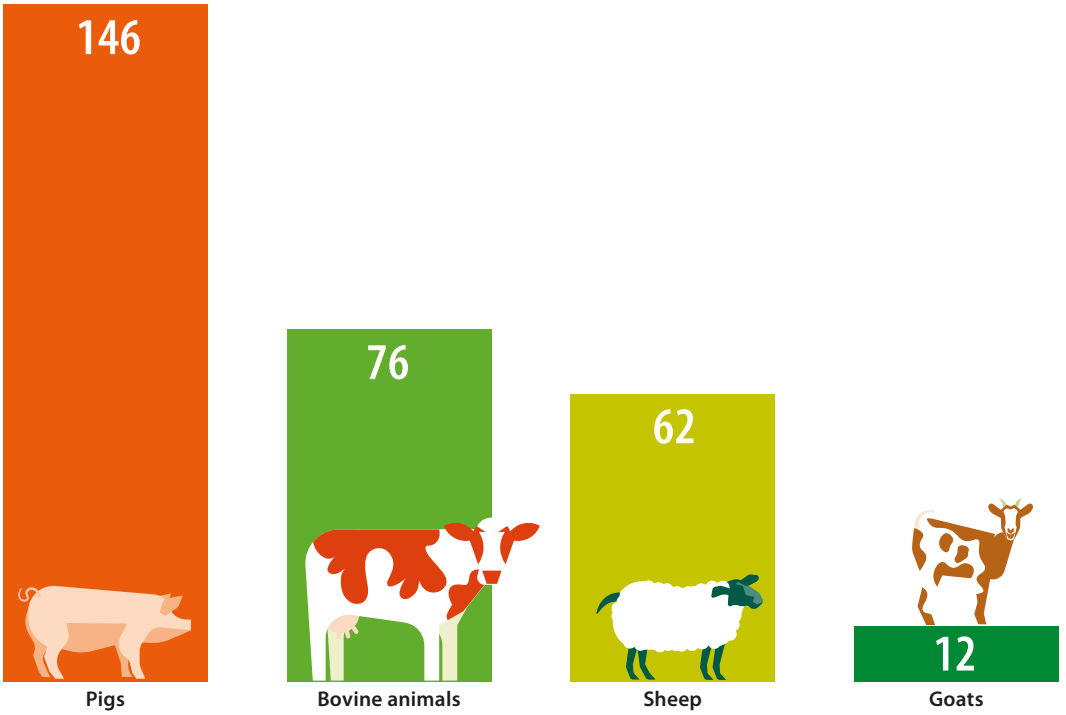
Source: Eurostat (online data code: apro_cpnh1)

Citrus fruit trees grow best with an abundance of sunshine and warm temperatures; some varieties cannot withstand temperatures below zero. Spain is the leading citrus fruit producer in the EU, with fruit orchards primarily located in the eastern and southern regions of Comunidad Valenciana, Región de Murcia and Andalucía. In 2020, Spain accounted for a majority of the EU's harvested production of satsumas (96.5 % of the EU total), pomelos and grapefruit (70.9 %), lemons and acid limes (64.7 %), clementines (62.8 %) and oranges (52.4 %).

Livestock population

Livestock populations

(million head, EU, 2020)



The EU has introduced a range of legislation covering the traceability of livestock, in part as a response to various food safety concerns. For most animal species, this traceability concerns a system of identification — usually through ear-tags or tattoos — coupled with a national register that details animals as they are reared, held or handled at each stage of the food chain.

As part of the *EU's Farm to Fork Strategy*, the *European Commission* is in the process of drafting a proposal to revise the *Feed Additives Regulation* ((EC) No 1831/2003) with the goal of reducing the environmental impact of livestock farming. For example it will examine rules to lessen dependency on feed materials grown on deforested land, and aim to replace these with EU-grown plant proteins and alternative feed.

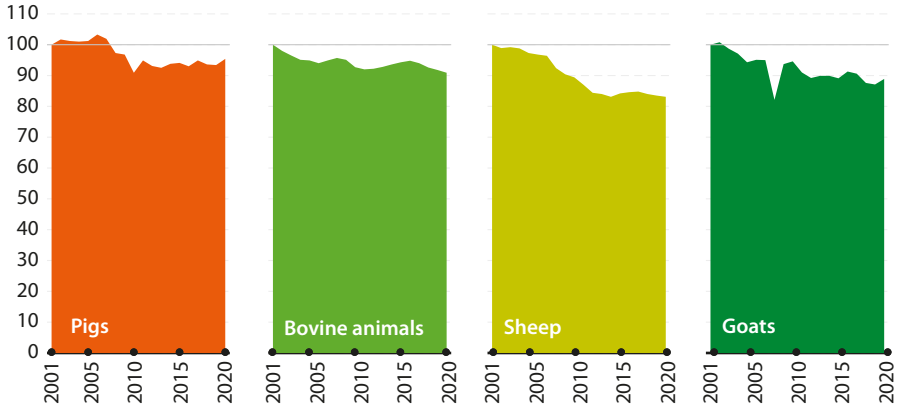
The EU has a sizeable livestock population: in 2020, there were 146 million head of pigs, 76 million head of bovine animals (such as cattle or buffaloes), and an estimated 75 million head of sheep and goats on EU farms.

Note: estimates made for the purpose of this publication.

Source: Eurostat (online data codes: apro_mt_lscatl, apro_mt_lspig, apro_mt_lssheep and apro_mt_lsgoat)

Developments of livestock populations

(2001 = 100 based on head of animals, EU, 2001-2020)



Note: estimates made for the purpose of this publication.

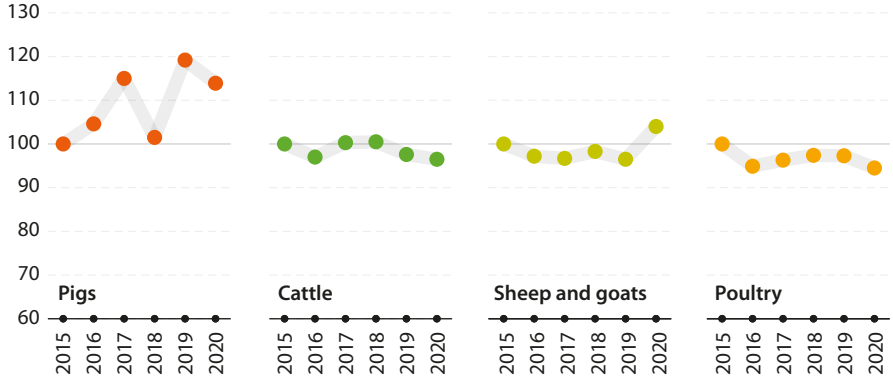
Source: Eurostat (online data codes: apro_mt_lscatl, apro_mt_lspig, apro_mt_lssheep and apro_mt_lsgoat)

During the last two decades, there has been a decline in livestock populations across the EU. Between 2001 and 2020, the EU's total livestock count for pigs, bovine animals, sheep and goats fell by an estimated 8.9 %. The number of head declined for each livestock population during the period under consideration: the largest overall decline (in percentage terms) was recorded for the number of sheep, while the reduction in pig numbers was relatively modest.

Looking in more detail at developments between 2019 and 2020, the population of pigs in the EU increased by 2.2 %. There was small reduction (down 0.5 %) in the number of head of sheep in 2020, while there was a 0.9 % fall in the number of bovine animals.

Developments of output price indices for animals

(2015 = 100, EU, 2015-2020)

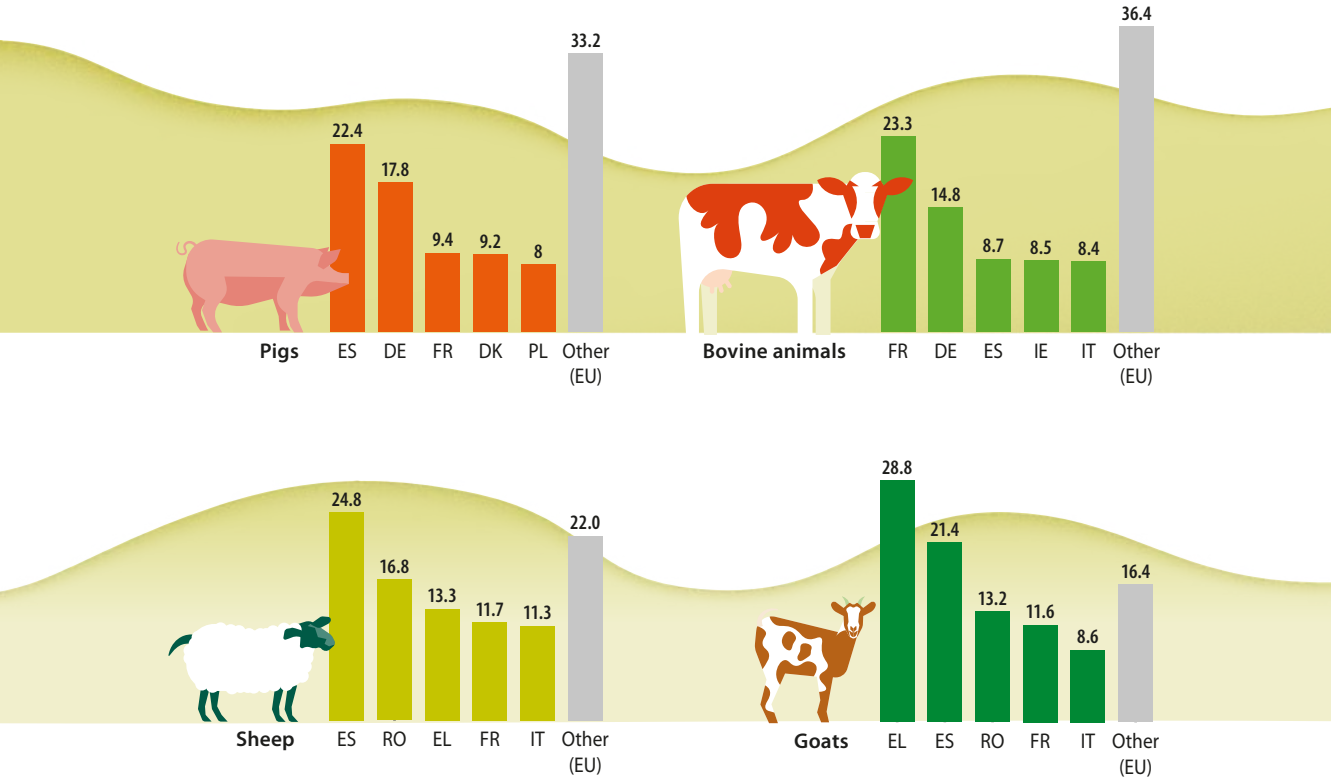


Source: Eurostat (online data code: apri_pi15_outa)

During the period 2015-2020, EU output price developments were relatively stable for most animals, with the price of pigs being the main exception. Having risen at a rapid pace between 2016 and 2017, output prices for pigs then fell back in 2018 before rebounding in 2019 and falling again at a somewhat slower pace in 2020. The output price of cattle was relatively unchanged, although price developments followed a downward path in both 2019 and 2020. Throughout the period from 2016-2019, output prices for sheep and goats remained below their average level for 2015, but then grew at a rapid pace in 2020 (up 7.8 %). Having fallen at a relatively rapid pace in 2016, output prices for poultry remained relatively stable during the remainder of the period under consideration.

Share of EU livestock populations

(% based on head of animals, 2020)



A majority of the EU's livestock is held in just a few of the EU Member States. Between one fifth and one quarter (23.3 %) of the EU's bovine population was found in France and similar shares of the EU's pig (22.4 %) and sheep (24.8 %) populations were in Spain. Greece (28.8 %) and Spain (21.4 %) together accounted for more than half of all the EU's goats.

Some of the EU Member States are relatively specialised in terms of livestock farming. For example, Ireland accounted for 8.5 % of the EU's bovine animals in 2020 (almost the same level as recorded in Spain), while Denmark accounted for 9.2 % of the EU's pig population (almost the same level as in France). After Spain, the second and third largest sheep populations in the EU were in Romania and Greece, with 16.8 % and 13.3 % shares respectively.

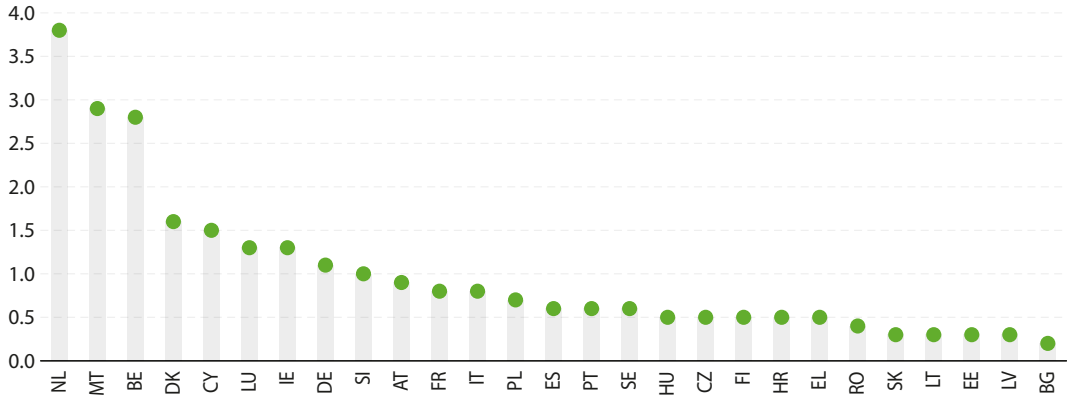
Note: estimates made for the purpose of this publication. Due to rounding, some of the totals do not sum to 100.0 %.

Source: Eurostat (online data codes: apro_mt_lscatl, apro_mt_lspig, apro_mt_lssheep and apro_mt_lsgoat)

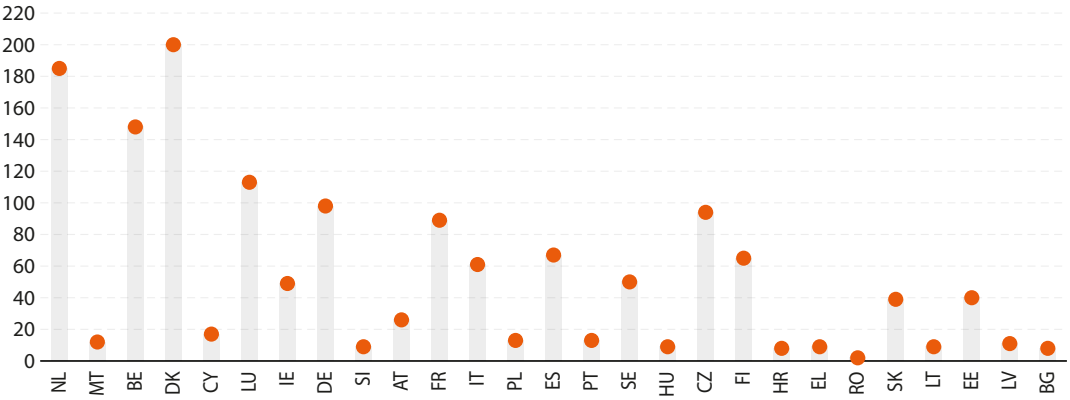
Livestock densities

(2016)

Livestock units per hectare of utilised agricultural area



Livestock units per livestock farm



The livestock density index is calculated as the stock of animals (measured in livestock units) per hectare of utilised agricultural area. Based on this measure, the highest livestock densities in 2016 among EU Member States were recorded in the Netherlands (3.8 livestock units per hectare of utilised agricultural area), Malta (2.9) and Belgium (2.8). By contrast, livestock farming was relatively extensive in the Baltic Member States and Bulgaria, with fewer than 0.30 livestock units per hectare of utilised agricultural area.

An alternative measure of livestock density can be defined as the number of livestock units per livestock farm. Based on this indicator, the average sizes of livestock farms in Denmark (200 livestock units per holding), the Netherlands (185) and Belgium (148) were particularly high. At the other end of the range, there were fewer than 10 livestock units per livestock farm in Hungary, Slovenia, Lithuania, Greece, Croatia, Bulgaria and Romania (where semi-subsistence livestock farming in relatively small farms tends to predominate).

Note: different scales are used for the two indicators in the chart.

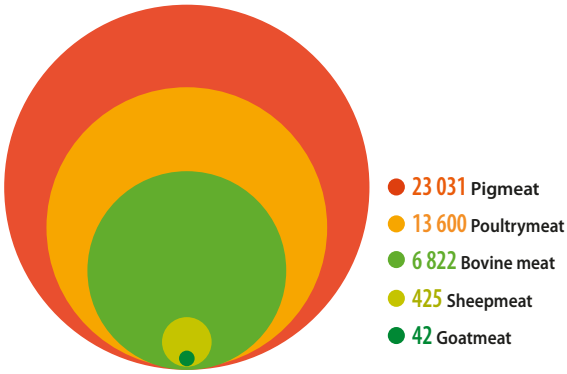
Source: Eurostat (online data codes: ef_lsk_main and ef_lus_main)

For more and updated information on livestock and meat, please refer to the Statistics Explained article.

Meat production

Meat production

(thousand tonnes, EU, 2020)



Note: estimates made for the purpose of this publication.

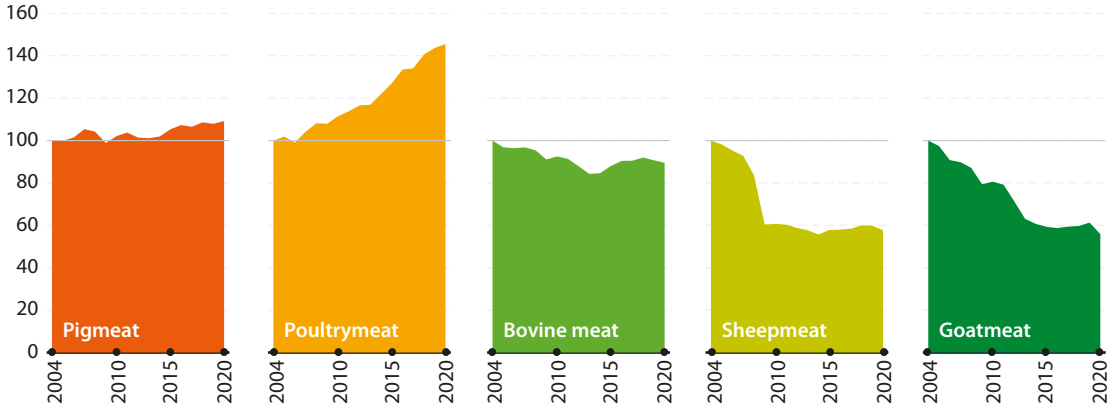
Source: Eurostat (online data code: apro_mt_pann)

Better animal welfare improves animal health and food quality. Within the context of the EU's *Farm to Fork Strategy*, the European Commission plans to revise legislation concerning the slaughter of animals so that it is aligned with scientific evidence, broadening its scope, making it easier to enforce, and ultimately ensuring a higher level of animal protection/welfare.

In 2020, there were 23.0 million tonnes of pigmeat produced within the EU. This was considerably more than the estimated level of poultrymeat production (13.6 million tonnes), which in turn was twice as high as the level of bovine meat production (6.8 million tonnes). The EU produced much smaller quantities of sheepmeat and goatmeat.

Developments of the quantity of meat production

(2004 = 100 based on tonnes, EU, 2004-2020)



Among other influences, consumer attitudes to eating meat have been affected by (scientific) advice regarding healthy diets. During the period from 2004-2020, there was a rapid and relatively uniform increase in the production of poultrymeat, with EU production rising overall by 45.6 %. The level of pigmeat production rose by 9.2 %, although most of this growth occurred after 2013; note the growth in pigmeat production was achieved despite a falling number of pigs. By contrast, the production of bovine meat fell between 2004 and 2013, rebounded somewhat in 2015 and 2016 but then remained relatively unchanged, with production approximately 10 % lower in 2020 than it had been in 2004. Sheepmeat production and goatmeat production fell by approximately 40 % during the periods 2004-2009 and 2004-2014 respectively, after which their production levels were relatively stable.

Note: estimates made for the purpose of this publication.

Source: Eurostat (online data code: apro_mt_pann)

Share of quantity of EU meat production

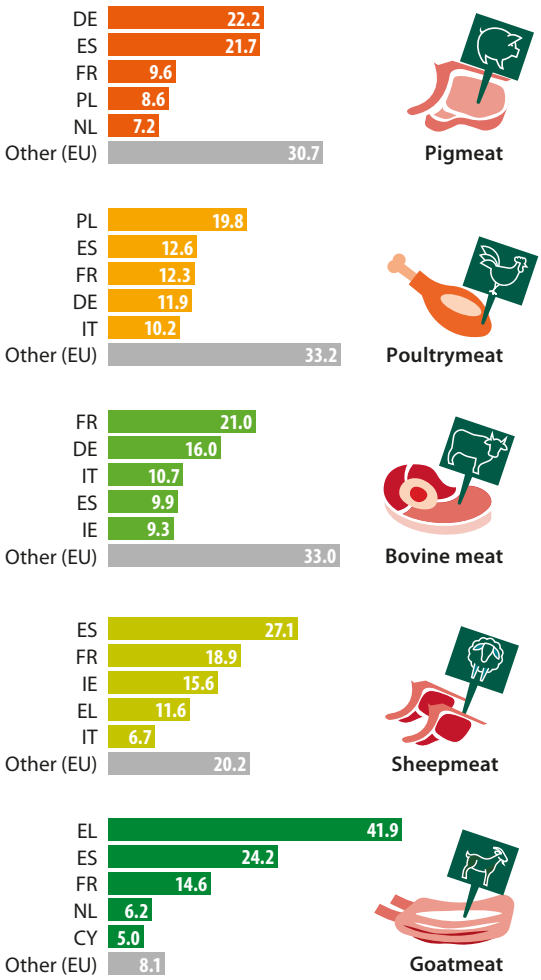
(%, 2020)

In 2020, slightly more than one fifth (22.2 %, or 5.1 million tonnes) of the EU's pigmeat production came from Germany, with a similar contribution made by Spain (21.7 %); each of the remaining EU Member States had single-digit shares of the EU total.

The highest level of poultrymeat production was in Poland (19.8 % of the EU total, or 2.7 million tonnes), while Spain (12.6 %), France (12.3 %), Germany (11.9 %) and Italy (10.2 %) each recorded double-digit shares of EU production.

More than one fifth of all the EU's bovine meat production was from France (21.0 %, or 1.4 million tonnes), with relatively large shares for Germany (16.0 %), Italy (10.7 %), Spain (9.9 %) and Ireland (9.3 %).

Spain had the highest share of the EU's sheepmeat production (27.1 %, or 115 thousand tonnes), while more than three fifths of the remaining production in the EU came from France (18.9 %), Ireland (15.6 %) and Greece (11.6 %).



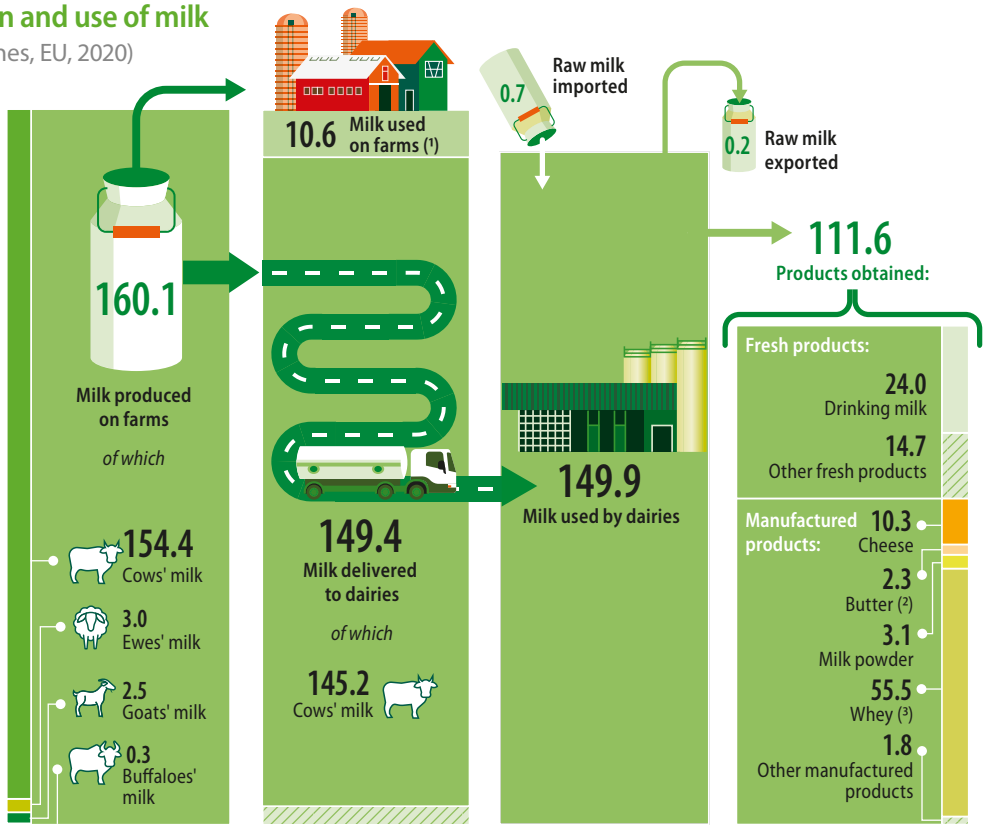
Note: estimates made for the purpose of this publication. Due to rounding, some of the totals do not sum to 100.0 %.

Source: Eurostat (online data code: apro_mt_pann)

Milk production

Production and use of milk

(million tonnes, EU, 2020)



22 DE

17 FR

10 NL

9 IT, PL

6 IE

5 ES

4 DK

3 BE

2 CZ, AT, FI, SE

1 EE, LV, LT, HU, PT, RO, SK

0 Others

In 2020, the production of raw milk on EU farms was 160.1 million tonnes; this represented an increase of 2.0 million tonnes (or 1.2 %) compared with the previous year. The vast majority of raw milk production in the EU is delivered to dairies; only 10.6 million tonnes were used on farms, being consumed by the farmer's family, sold directly to consumers, used as feed or processed directly. Of the 149.4 million tonnes of milk delivered to dairies, 145.2 million tonnes were cows' milk, the rest being milk from other livestock: ewes (sheep), goats and buffaloes.

Note: estimates made for the purpose of this publication.
(1) In whole milk equivalent.
(2) Includes other yellow fat dairy products; expressed in butter equivalent.
(3) In liquid whey equivalent.

Source: Eurostat (online data codes: apro_mk_pobta and apro_mk_farm)

Share of cows' milk collected by EU dairies

(%, 2020)

Traditionally, hygiene rules have required the collection of milk to be frequent, with transport over a short distance between farms and dairies. The development of cooling tanks on farms and of bigger milk tankers have made these characteristics less critical. In 2020, 22.4 % of the EU's cows' milk was collected for processing by German dairies. Germany, France (17.0 %), the Netherlands (9.6 %), Poland (8.6 %) and Italy (8.6 %) together accounted for close to two thirds (66.2 %) of the cows' milk collected by EU dairies.

Note: estimates made for the purpose of this publication. Due to rounding, the shares do not sum to 100 %.

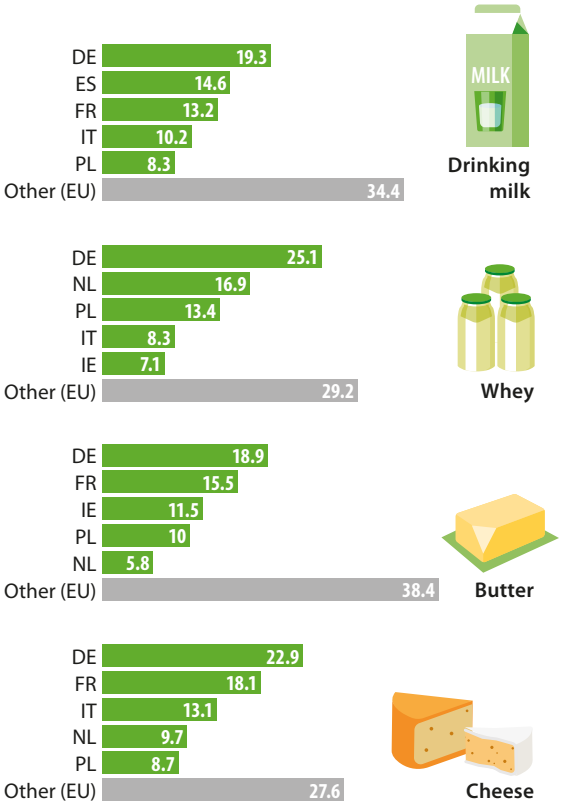
Source: Eurostat (online data code: apro_mk_pobta)

Share of EU dairy products

(%, 2020)

Some of the principal dairy products that are produced in the EU include drinking milk, whey (a by-product in the manufacture of cheese), butter and cheese. Germany had the highest level of production for all four of these dairy products in 2020: 14.0 million tonnes of whey, 4.6 million tonnes of drinking milk, 2.4 million tonnes of cheese and 434 thousand tonnes of butter.

Unsurprisingly, the highest levels of production for dairy products were generally recorded in the most populous EU Member States, although there were some exceptions. For example, the Netherlands had the second highest level of production for whey (9.4 million tonnes) and the fourth highest for cheese (1.0 million tonnes), while 265 thousand tonnes of butter were produced in Ireland (the third highest value among EU Member States).



Note: estimates made for the purpose of this publication. Due to rounding, some of the totals do not sum to 100 %.

Source: Eurostat (online data code: apro_mk_pobta)

Milk collection from animals other than cows

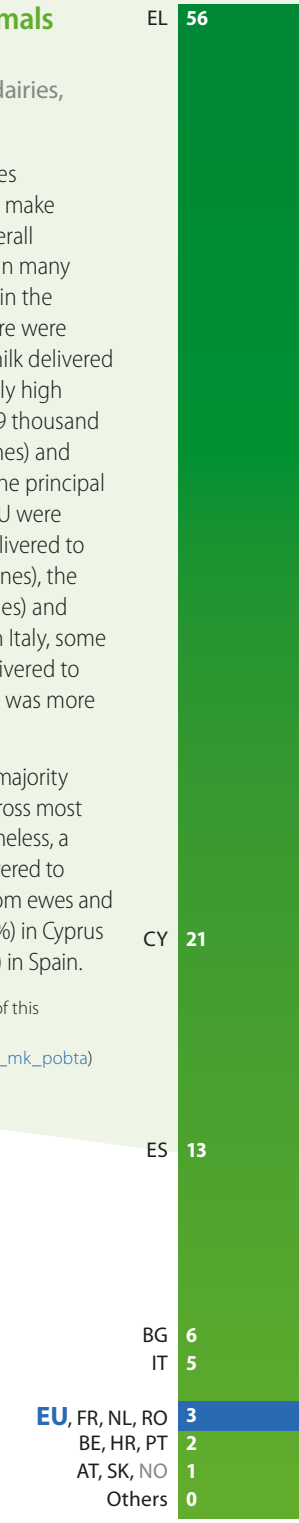
(% of total milk delivered to dairies, 2020)

There are a few EU Member States where livestock other than cows make an important contribution to overall milk production; this is the case in many rural or arid regions, particularly in the Mediterranean area. In 2020, there were 684 thousand tonnes of ewes' milk delivered to dairies in Greece, with relatively high levels also recorded in Spain (589 thousand tonnes), Italy (453 thousand tonnes) and France (306 thousand tonnes). The principal producers of goats' milk in the EU were France (523 thousand tonnes delivered to dairies), Spain (512 thousand tonnes), the Netherlands (407 thousand tonnes) and Greece (156 thousand tonnes). In Italy, some 229 thousand tonnes of milk delivered to dairies came from buffaloes; this was more than 95 % of the EU total.

Cows' milk accounts for the vast majority of the milk delivered to dairies across most of the EU Member States. Nevertheless, a majority (56.3 %) of the milk delivered to dairies in Greece in 2020 came from ewes and goats, as did over one fifth (20.8 %) in Cyprus and more than one tenth (12.9 %) in Spain.

Note: estimates made for the purpose of this publication.

Source: Eurostat (online data code: apro_mk_pobta)



For more information on milk and milk products, please refer to the Statistics Explained article.

3 Agricultural output value and economic performance

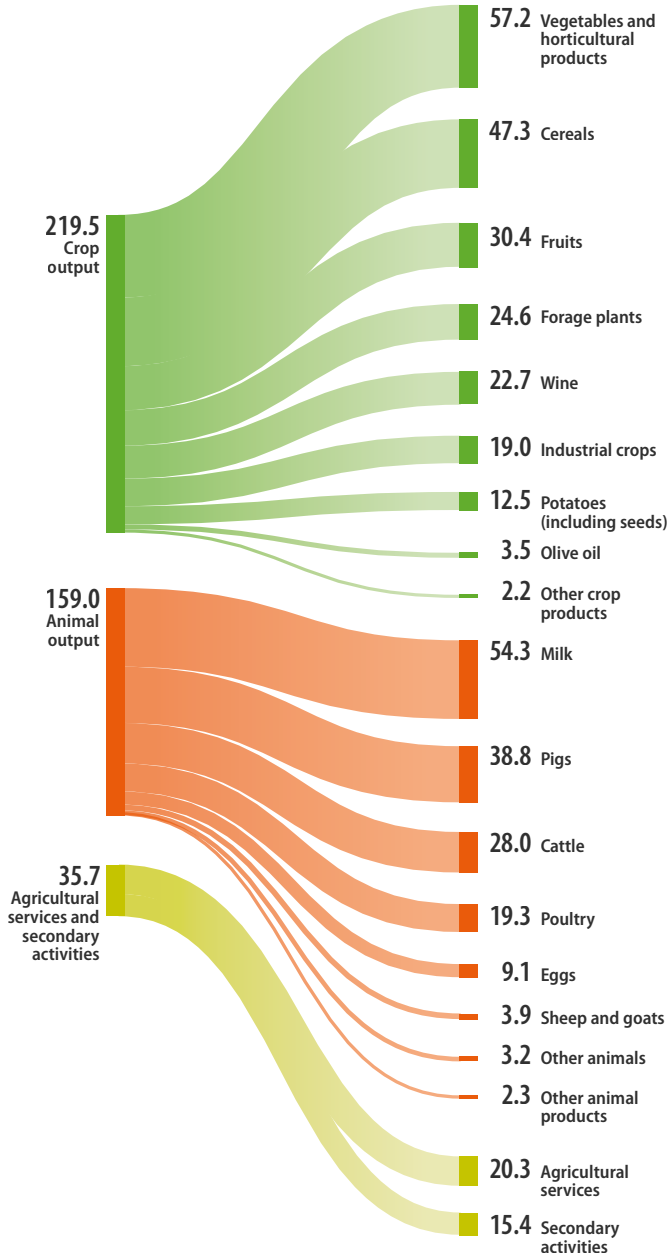
Gross output and intermediate consumption

Distribution of gross output for the agricultural industry

(EUR billion, values at basic prices, EU, 2020)

Among other objectives, the EU's *Farm to Fork Strategy* aims to generate fairer economic returns and foster competitiveness of the EU supply sector. The economic performance of the agricultural sector matters directly for farms, farmers and farm workers as well as indirectly for upstream and downstream activities, rural communities and final consumers of products derived from agricultural output.

The term agricultural industry is used to describe all agricultural holdings (farms) involved in agricultural production, groups of producers (co-operatives) that make wine and olive oil, and specialised agricultural contractors. The value of the gross output produced by the EU's agricultural industry was EUR 414.1 billion in 2020. This includes: crop output (EUR 219.5 billion; 53.0 % of the total), animal output (EUR 159.0 billion; 38.4 %), agricultural services (EUR 20.3 billion; 4.9 %) and some non-agricultural goods and services (EUR 15.4 billion; 3.7 %).

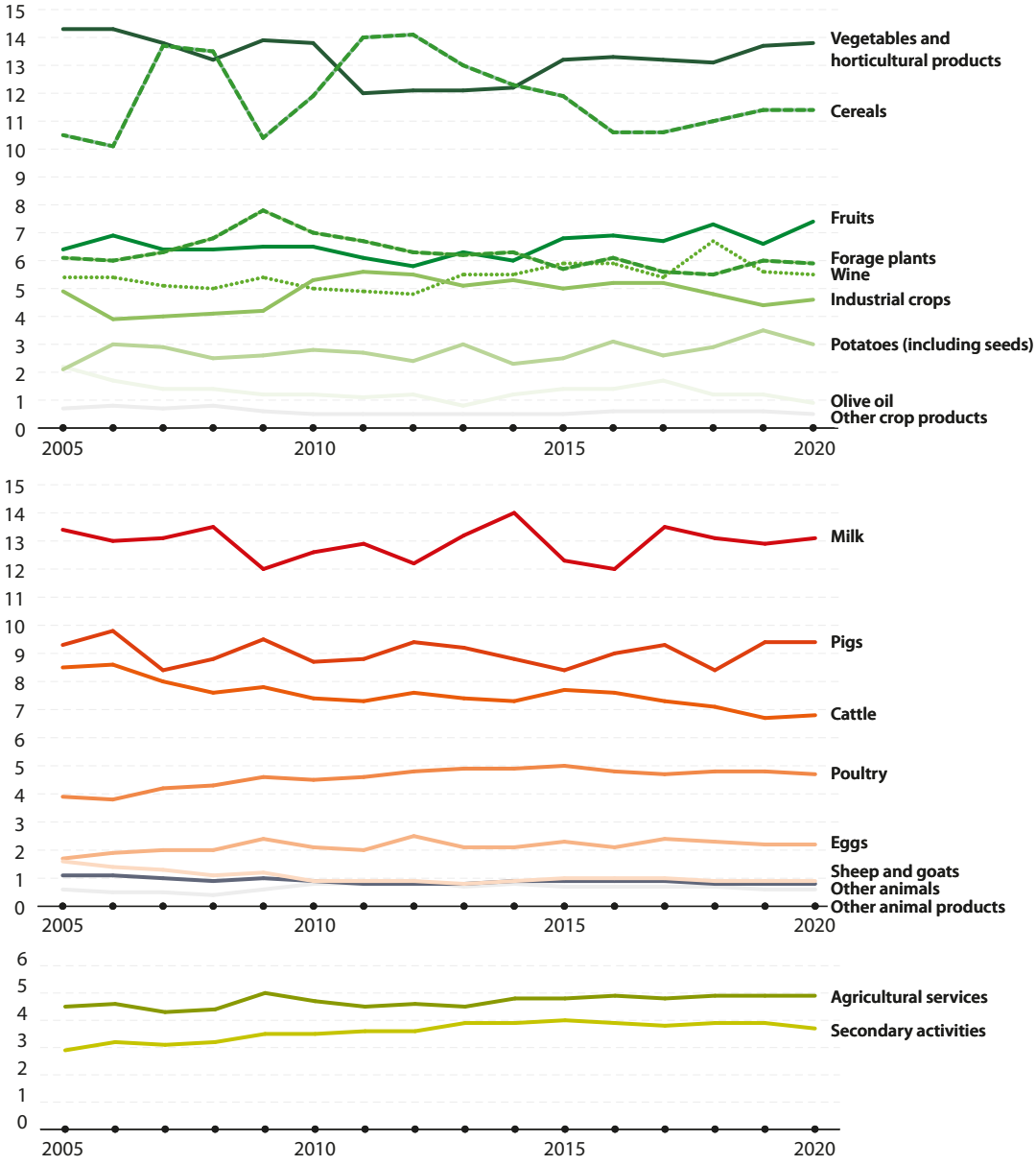


Note: gross output is the production value.

Source: Eurostat (online data code: aact_eaa01)

Developments of gross output for the agricultural industry

(% share of total agricultural output, values at basic prices, EU, 2005-2020)



At a more detailed level, the largest categories of the EU's agricultural output in 2020 were vegetables and horticultural products (EUR 57.2 billion; 13.8 % of the total), milk (EUR 54.3 billion; 13.1 %), cereals (EUR 47.3 billion; 11.4 %) and pigs (EUR 38.8 billion; 9.4 %).

Source: Eurostat (online data code: aact_eaa01)

Developments of gross output indices

(2005 = 100, basic prices, EU, 2005-2020)

Note: indices originally compiled with 2010 = 100; rescaled to 2005 = 100.

Source: Eurostat (online data code: aact_eaa05)

In current price terms, the value of the agricultural industry's output fell back slightly in 2020 (down 1.1 %) from a relative peak in 2019. This development reflected a 1.0 % fall in the output price of agricultural goods and services as a whole and a reduction of 0.2 % in output in the volume ([1]) of output.

The fall in the output value of the EU's agricultural industry in 2020 reflected similar rates of decline in the values of animal output (down 1.1 %) and crop output (down 1.0 %). The decline in the value of crop output reflected a reduced volume (down 0.7 %) and barely changed prices (down 0.3 %), whereas for animal output, prices fell 2.3 % but the volume of output rose (up 1.3 %).

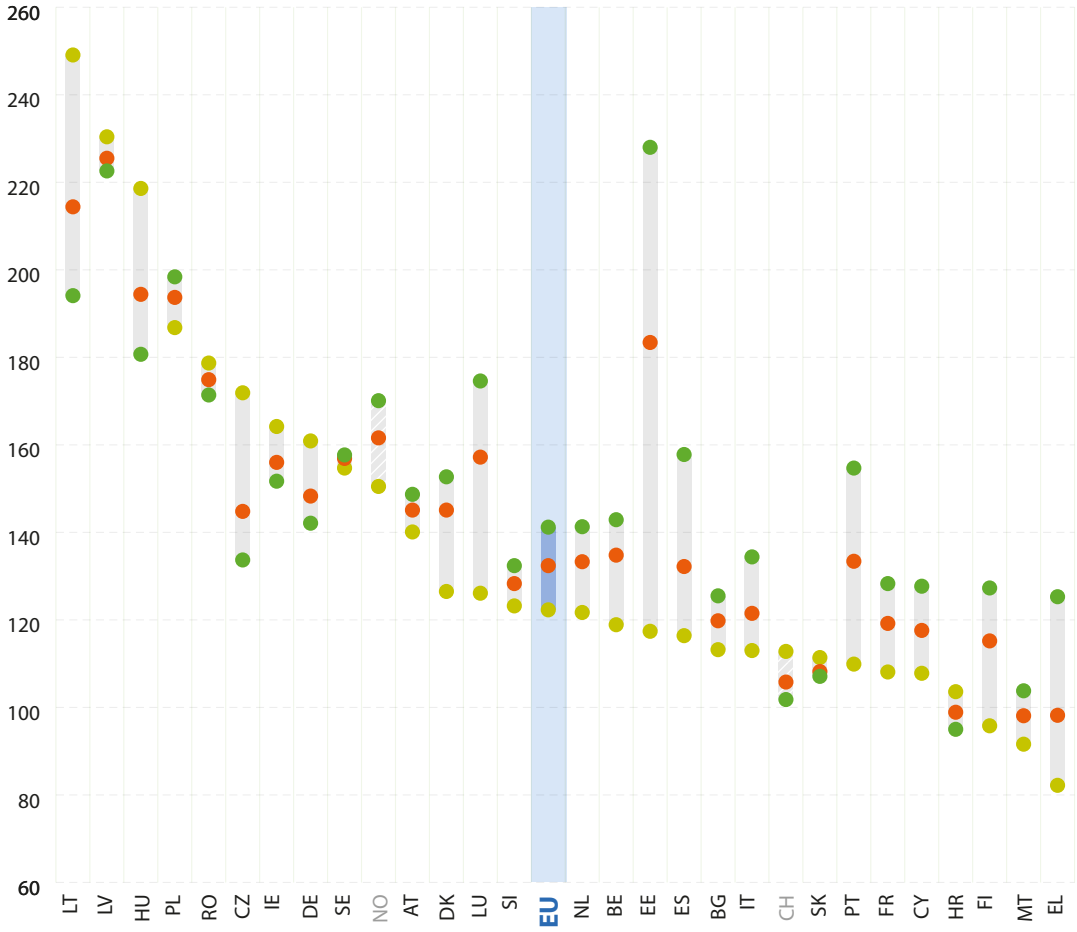
Inputs of products that are used up (consumed) in a production process, such as seeds, fertilisers, animal feed, fuel and veterinary services, are referred to as intermediate consumption. The cost of these inputs for the agricultural industry totalled EUR 235.8 billion for the EU as a whole in 2020.

The difference between the output value and the cost of intermediate consumption is the value added at basic prices, in other words, the value that has been added through production (in this case agricultural) processes. In 2020, value added in the EU's agricultural industry was EUR 178.4 billion; in current price terms; this was 1.3 % lower than in 2019.

([1]) The change in the volume of output reflects the change in the value of output after removing any price changes (inflation or deflation). A change in volume terms is broadly synonymous with a change in constant prices.

Developments of output and consumption for the agricultural industry

(2005 = 100, values at current basic prices, 2020)



Cost of intermediate consumption

Gross output value

Gross value added

Note: indices originally compiled with 2010 = 100; rescaled to 2005 = 100. Ranked on the change in value added.

Source: Eurostat (online data code: aact_eaa05)

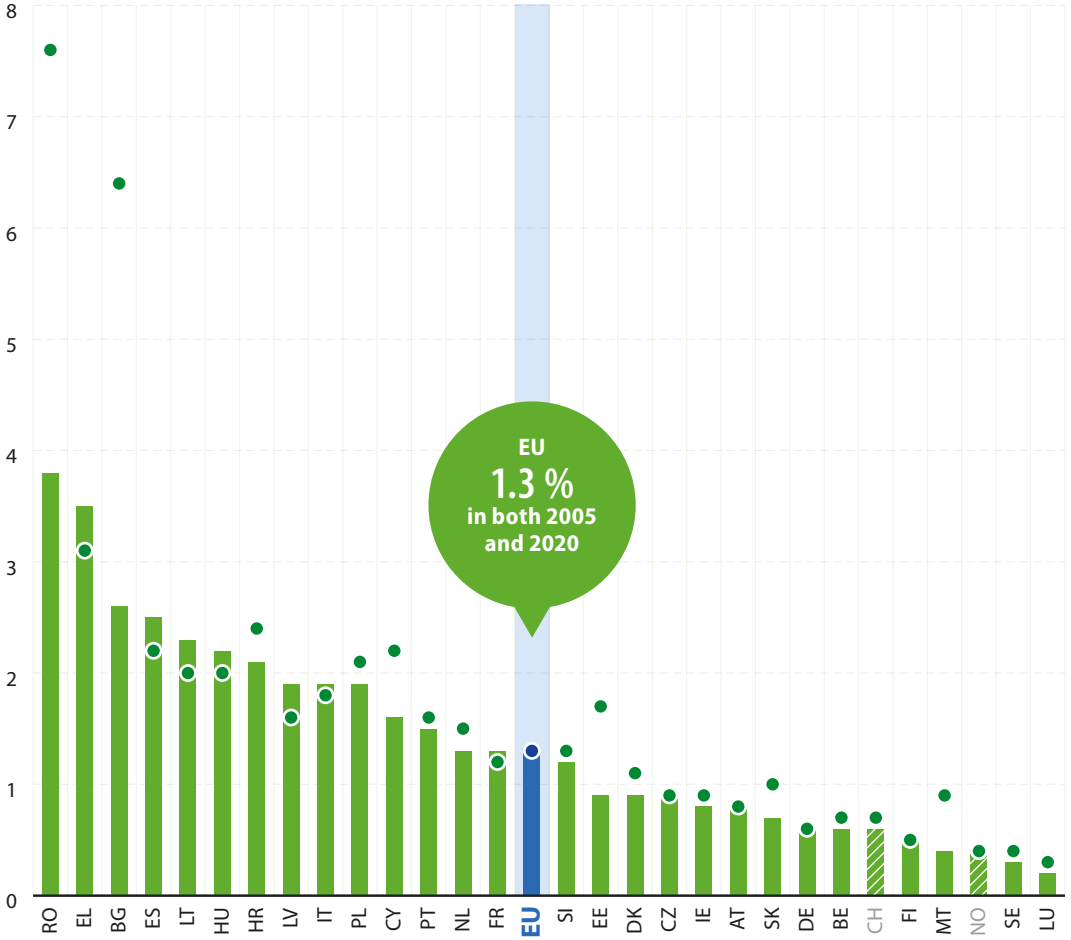
Between 2005 and 2020, gross value added in the EU's agricultural industry increased overall by 22.3 % in current price terms, reflecting a 32.4 % increase in the value of output offset to some extent by a 41.2 % increase in the costs of intermediate consumption.

Three of the EU Member States — Lithuania, Latvia and Hungary — recorded value added in their agricultural industries at least doubling in current price terms between 2005 and 2020. In Poland, Romania, Czechia, Ireland, Germany and Sweden, value added increased by at least 50 %. In Finland, Malta and Greece, value added in 2020 was lower than in 2005. Croatia, Greece and Malta were the only EU Member States where the output of the agricultural industry was lower in 2020 than in 2005, while Croatia was the only one where the cost of intermediate consumption fell.

Value added

Gross value added from agriculture

(% relative to GDP, 2005 and 2020)



2005
2020

Source: Eurostat (online data codes: aact_eaa01 and nama_10_gdp)

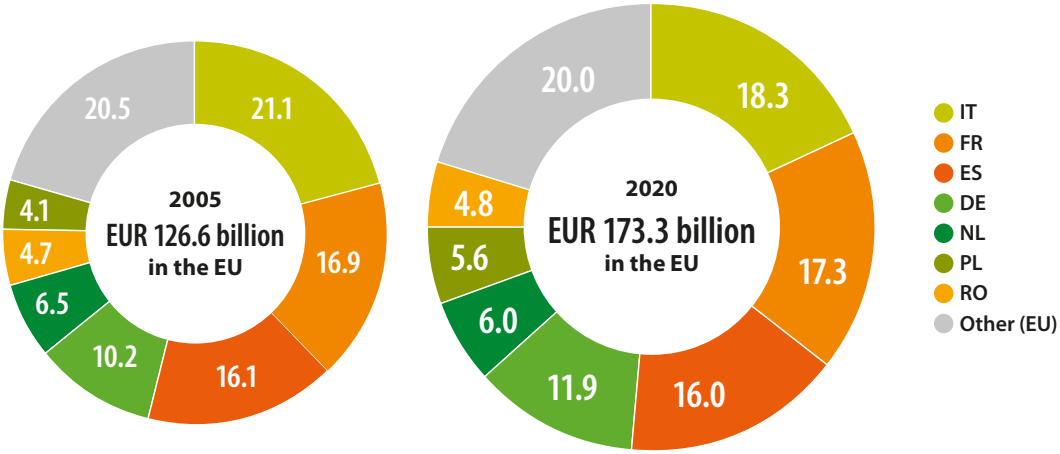
In 2020, value added from the EU's agricultural industry was equivalent to 1.3 % of gross domestic product (GDP). This was the same ratio as recorded in 2005.

The ratio of the value added of the agricultural industry to GDP in 2020 was notably higher in Romania (3.8 %) and Greece (3.5 %) than in any of the other EU Member States: the next highest ratio was 2.6 % in Bulgaria. In 12 Member States, this ratio was below 1.0 %; the lowest values were 0.3 % in Sweden and 0.2 % in Luxembourg.

Between 2005 and 2020, this ratio increased in 10 of the EU Member States. The largest increases, in the range of 0.3-0.5 percentage points, were recorded for Greece, Lithuania, Latvia, Spain and Hungary. The largest decreases by far were in Bulgaria and Romania, both down 3.8 points.

Gross value added for the agricultural industry

(% share of EU total, values at current prices, 2005 and 2020)



Source: Eurostat (online data code: aact_eaa01)

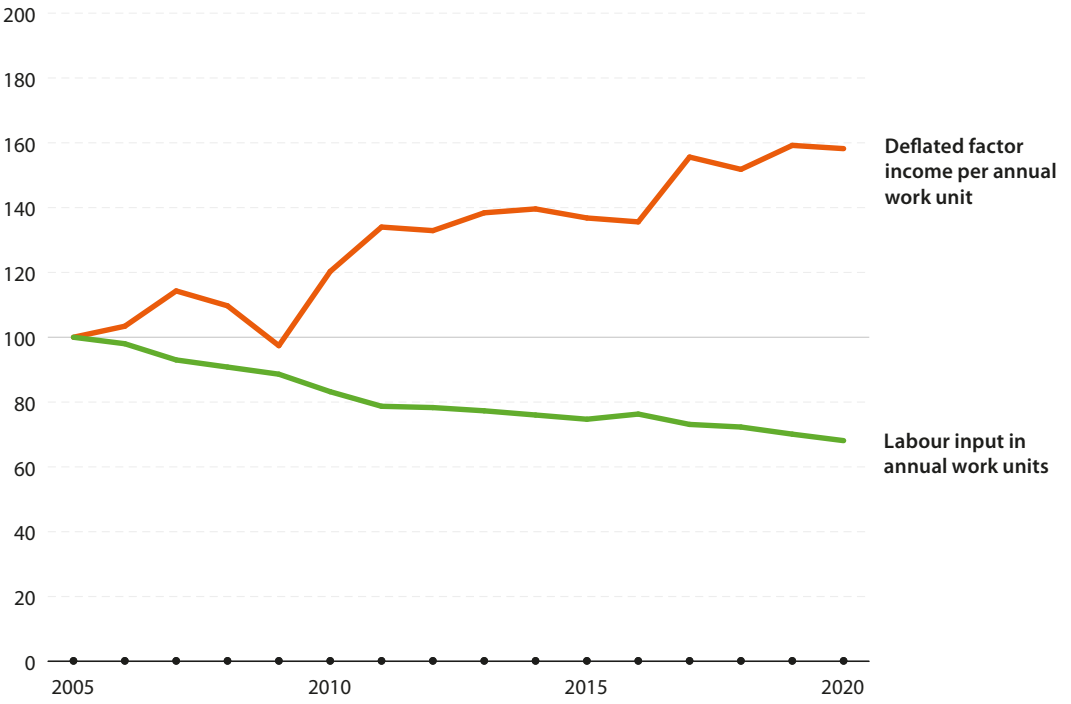
In 2020, Italy's agricultural industry had the highest value added among the EU Member States, contributing 18.3 % of the EU's total. France had a share of 17.3 %, followed by Spain with 16.0 % and Germany with an 11.9 % share.

Comparing 2005 with 2020, Italy's and Greece's shares of the EU total decreased by most (down 2.7 and 1.5 percentage points respectively). The largest increases were recorded for Germany (up 1.7 points) and Poland (up 1.6 points). The increase in the Polish share moved it from being the eighth largest agricultural economy (in value added terms) among the Member States in 2005 to the sixth largest by 2020, passing Greece and Romania.

Labour productivity

Agricultural labour input and income

(2005 = 100, EU, 2005-2020)



Note: indices originally compiled with 2010 = 100; rescaled to 2005 = 100.

Source: Eurostat (online data codes: aact_eaa06 and aact_ali02)

The economic performance of the agricultural industry can also be measured in terms of net value added at factor cost, so-called factor income. It is the remuneration for all the factors of production, such as labour and capital.

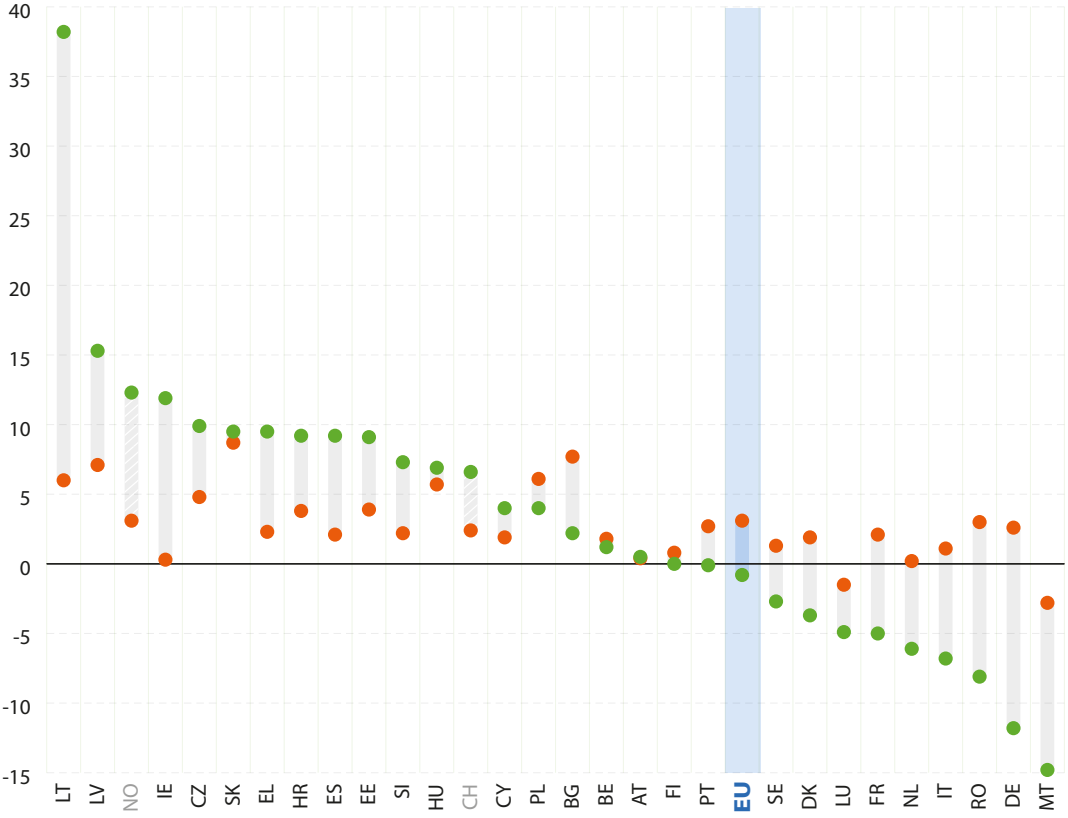
Factor income can be presented as a ratio to employment, and can then be considered as a partial labour productivity measure. To do so, care has to be taken of part-time, seasonal and unpaid (often family) labour input. The amount of work actually carried out in agriculture is described using a unit called the annual work unit: this unit is equivalent to the amount of work done by a person working full-time for a whole year. The factor income per annual work unit shows the net value added by the equivalent of each full-time worker. This indicator is deflated and expressed as an index.

Agricultural labour input fell 31.9 % between 2005 and 2020, equivalent to an annual average decline of 2.5 %. This decline was quite regular, falling every year except for 2016, normally by less than 4.0 %; the rate of decline in 2020 was 2.9 %.

Real factor income per annual work unit for the EU was 58.2 % higher in 2020 than it was in 2005, equivalent to an annual average increase of 3.1 %. The largest annual decreases were observed in 2008 and 2009, while there were smaller decreases in 2012, 2015, 2016, 2018 and 2020.

Real developments in agricultural factor income per annual work unit

(%)



Average annual change 2005-2020

Annual change, 2019-2020

Source: Eurostat (online data code: aact_eaa06)

A majority of EU Member States recorded increases in the index of agricultural factor income in 2020 compared with 2019. The largest increases were in Lithuania (up 38.2 %), Latvia (15.3 %) and Ireland (11.9 %). The moderate real fall in factor income per annual work unit for the EU as a whole (down 0.8 %) reflected falls in several Member States with large agricultural industries: there was a reduction of 11.8 % in Germany, 8.1 % in Romania, 6.8 % in Italy, 6.1 % in the Netherlands and 5.0 % in France.

Looking at a longer time perspective — comparing 2020 with 2005 — Malta and Luxembourg reported a real fall in agricultural factor income per annual work unit (down on average by 2.8 % and 1.5 % per year); elsewhere the index increased. Among the larger economies, increases were often below the EU average of 3.1 % per year, as was the case for example in Italy (up 1.1 %), France (2.1 %), Spain (2.1 %) and Germany (2.6 %). The main exception was Poland whose index increased on average by 6.1 % per year. This was the fourth highest increase of all, smaller only than the average increases recorded for Slovakia, Bulgaria and Latvia.

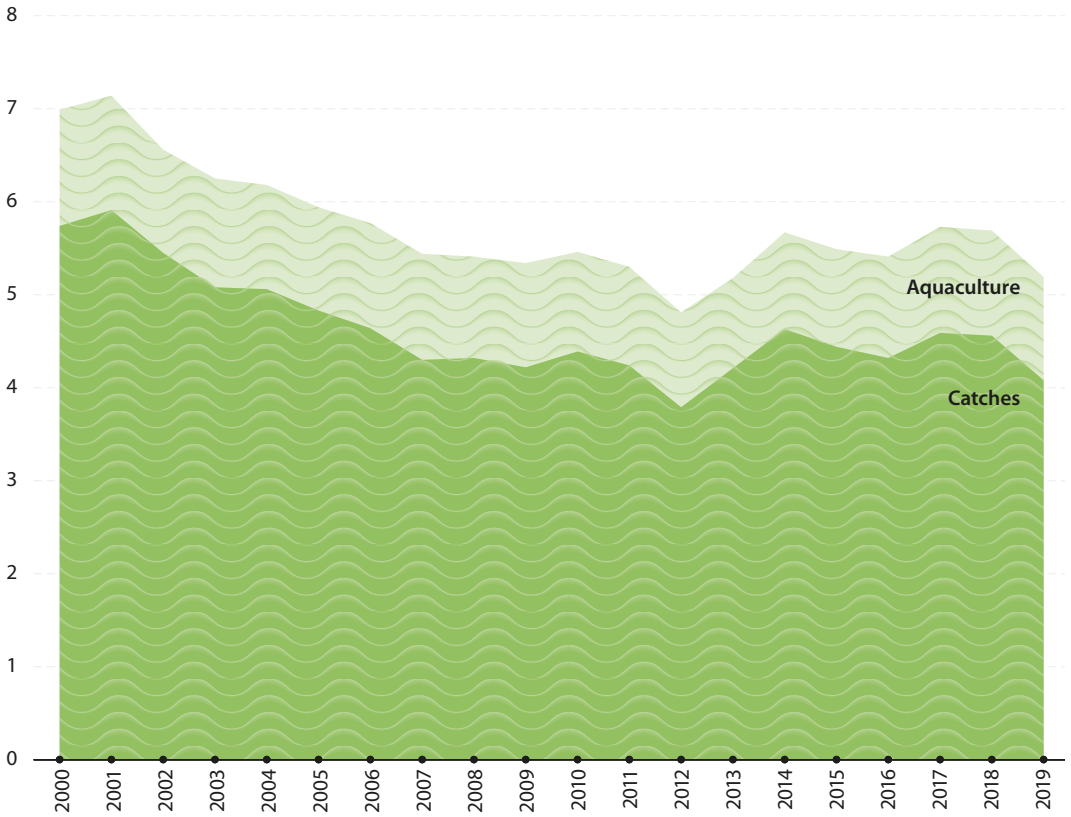
For more information on the performance of the agricultural sector, please refer to the Statistics Explained article.

4 Fishing and aquaculture

Key figures for the EU

Total production of fishery products

(million tonnes, EU, 2000-2019)



Fish are a renewable and mobile natural resource. Within the EU, fish stocks are managed collectively under the Common Fisheries Policy. Within the broader context of the *Farm to Fork Strategy*, the European Commission aims to bring fish stocks to sustainable levels by (among other actions) reducing wasteful discarding, enhancing traceability and strengthening fisheries management.

The EU's total production of fishery products was estimated to be 5.20 million tonnes of live weight equivalent in 2019, which was 8.7 % lower than its level in 2018 and 25.7 % lower than in 2000. Developments in the production of fishery products over the last two decades largely reflected a managed reduction in the quantity of fish caught at sea (four fifths of total production), while output from aquaculture — mainly fish farming — remained relatively stable.

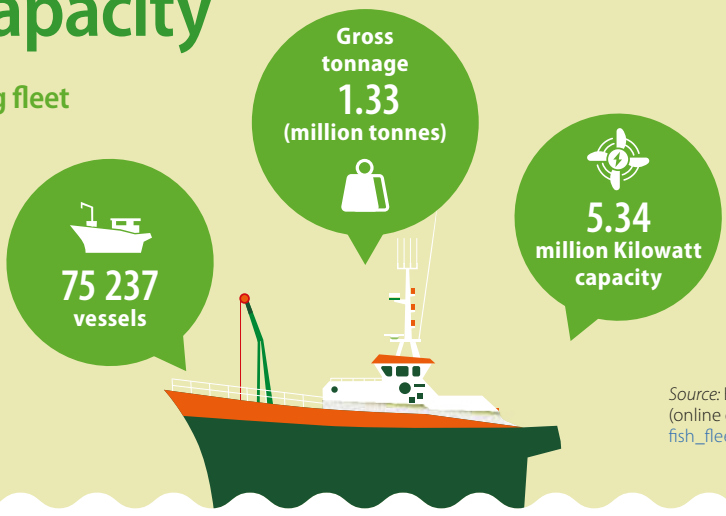
Note: estimates made for the purpose of this publication.

Source: Eurostat (online data codes: fish_ca_main, fish_aq_q and fish_aq2a) and the European Market Observatory for Fisheries and Aquaculture (EUMOFA)

Fleet capacity

Size of the fishing fleet

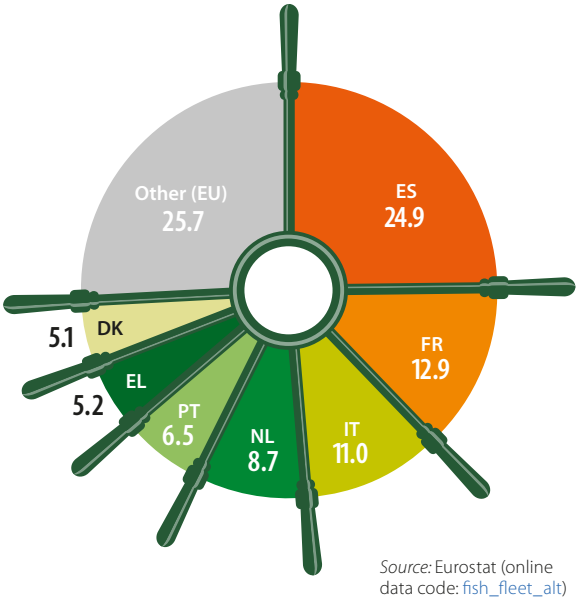
(EU, 2019)



Source: Eurostat (online data code: fish_fleet_alt)

The EU's fishing fleet numbered 75 237 active vessels in 2019, with a gross tonnage of 1.33 million tonnes and a total engine power of 5.34 million kilowatts. The vast majority of boats within the EU's fishing fleet are no more than 10 metres long.

The size of the EU fleet has declined steadily over the last three decades, in terms of both tonnage (which provides a measure of the capacity for holding fish) and engine power (which provides a measure of the power available for fishing gear). The EU fishing fleet had approximately 10 thousand fewer vessels in 2019 than in 2009, down 12.9 %, with a combined capacity that was 19.9 % smaller and a total engine power that was 14.5 % smaller; note that this comparison excludes data for Croatia (for which 2009 data are not available).



Source: Eurostat (online data code: fish_fleet_alt)

Share of Member States in the EU's fishing fleet

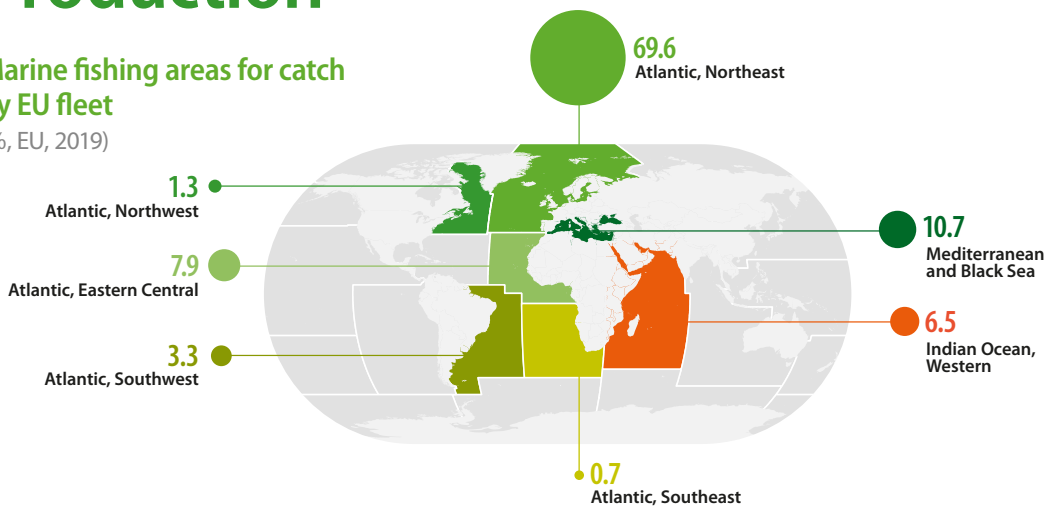
(% based on gross tonnage, 2019)

When measured by gross tonnage, Spain had, by far, the largest fleet among EU Member States (24.9 % of the EU total in 2019), followed by France (12.9 %) and Italy (11.0 %). However, when measured by engine power, the largest fleet was in France (17.9 % of the EU total), while the highest number of vessels was in Greece (19.6 % of the EU total).

Production

Marine fishing areas for catch by EU fleet

(%, EU, 2019)



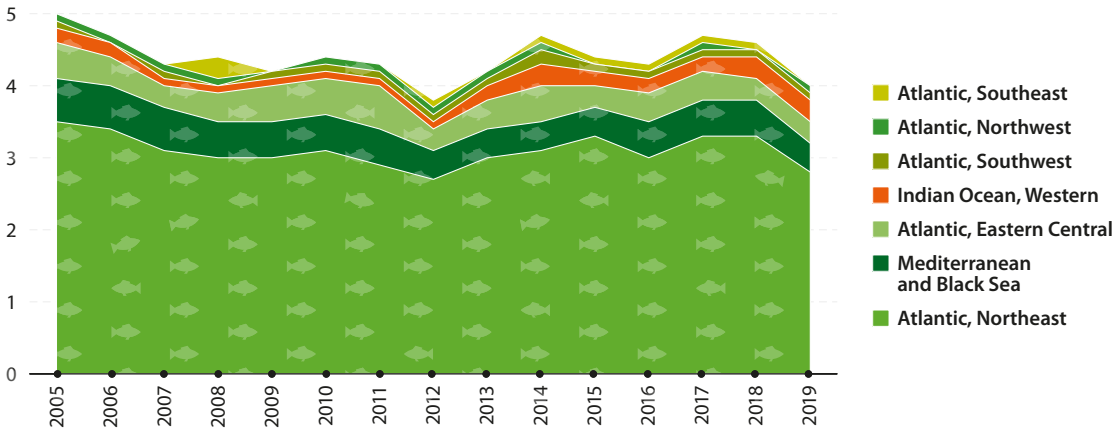
Although the EU's fishing fleet operates worldwide, official statistics on EU fishing activities only cover seven major marine fishing areas, as shown in the map. These areas are defined by the Food and Agriculture Organization of the United Nations. Based on scientific advice, annual quotas are set for most commercial fish species in each fishing area, detailing the total allowable catch.

Note: estimates made for the purpose of this publication.

Source: Eurostat (online data code: fish_ca_main)

Developments of catch

(million tonnes, EU, 2005-2019)



The vast majority of the EU's catch is taken in the Atlantic, Northeast: in 2019, this area accounted for 69.6 % of the EU's total catch across the seven major fishing areas. Just over one tenth (10.7 %) of the EU's total catch was taken in the Mediterranean and Black Sea, while the next highest shares were recorded for the Atlantic, Eastern Central area (7.9 %) and Indian Ocean, Western area (6.5 %).

Note: estimates made for the purpose of this publication.

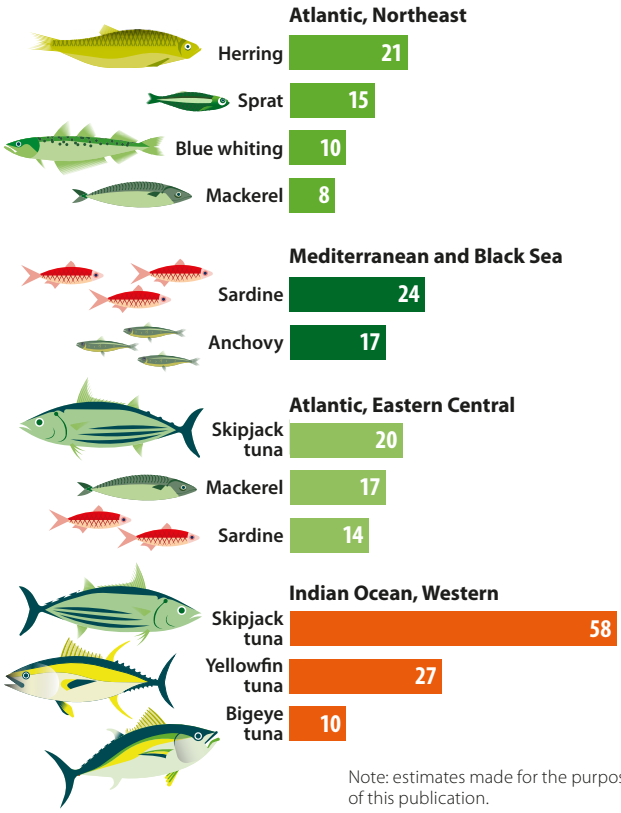
Source: Eurostat (online data code: fish_ca_main)

Share of main species in EU catch

(% of total live weight caught in each marine fishing area, 2019)

The EU's fishing fleet catches a wide variety of fish species. This reflects, among other factors, the characteristics of fishing grounds, different types of fishing techniques and gear, quotas, and patterns of consumer demand.

In 2019, the main species that were caught in the Atlantic, Northeast area included herring (21 % of the live weight caught in this area), sprat (15 %), blue whiting (10 %) and mackerel (8 %). The two main species caught in the Mediterranean and Black Sea were sardine (24 %, mainly European pilchards) and anchovy (17 %). In the Atlantic, Eastern Central area, the main species that were caught included skipjack tuna (20 %), mackerel (17 %) and sardine (14 %). The fish caught by the EU's fleet in the Indian Ocean, Western area were almost exclusively tuna, in particular skipjack (58 %), yellowfin (27 %) and bigeye (10 %).

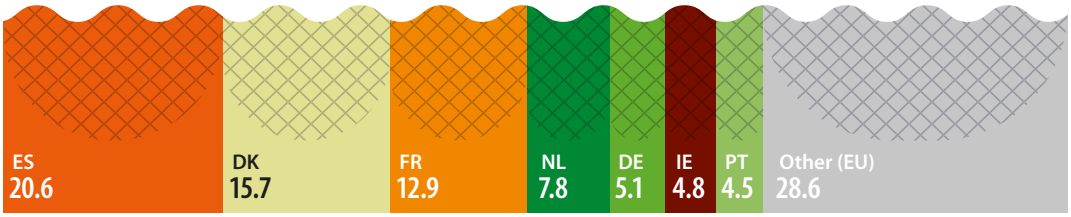


Note: estimates made for the purpose of this publication.

Source: Eurostat (online data code: fish_ca_main)

Share of Member States in EU catch

(%, 2019)



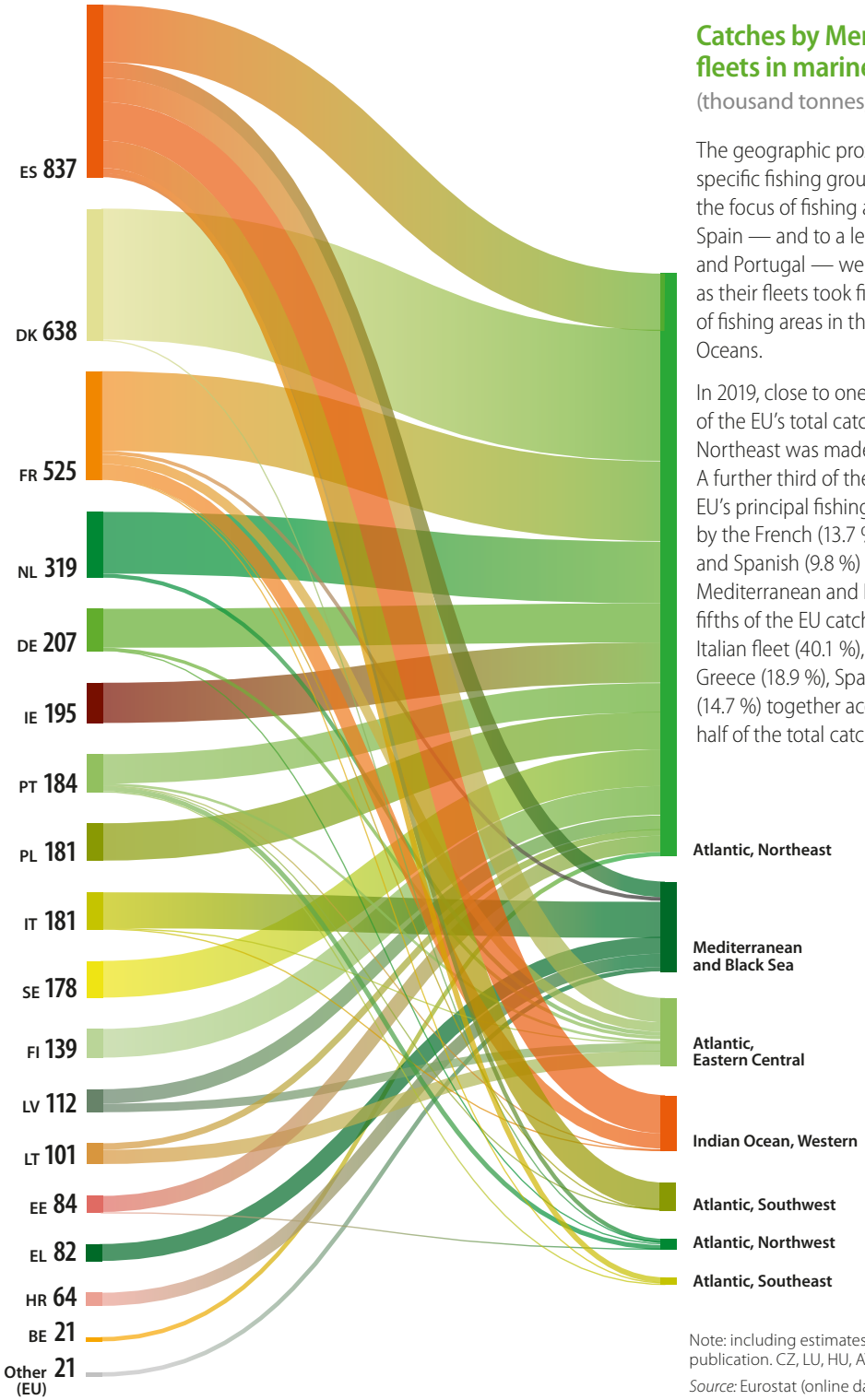
Spain, with 837 thousand tonnes of live weight, had the largest fish catch among EU Member States in 2019 (20.6 % of the total), followed by Denmark (15.7 %) and France (12.9 %). Iceland and Norway had a combined catch of 3.13 million tonnes of fish in 2019; this was equivalent to more than three quarters of the total quantity of fish caught by the EU fleet.

Note: estimates made for the purpose of this publication.

Source: Eurostat (online data code: fish_ca_main)

Catches by Member States' fleets in marine fishing areas

(thousand tonnes, 2019)



The geographic proximity of a port to specific fishing grounds often determines the focus of fishing activities. However, Spain — and to a lesser extent France and Portugal — were exceptions, insofar as their fleets took fish from a wider range of fishing areas in the Atlantic and Indian Oceans.

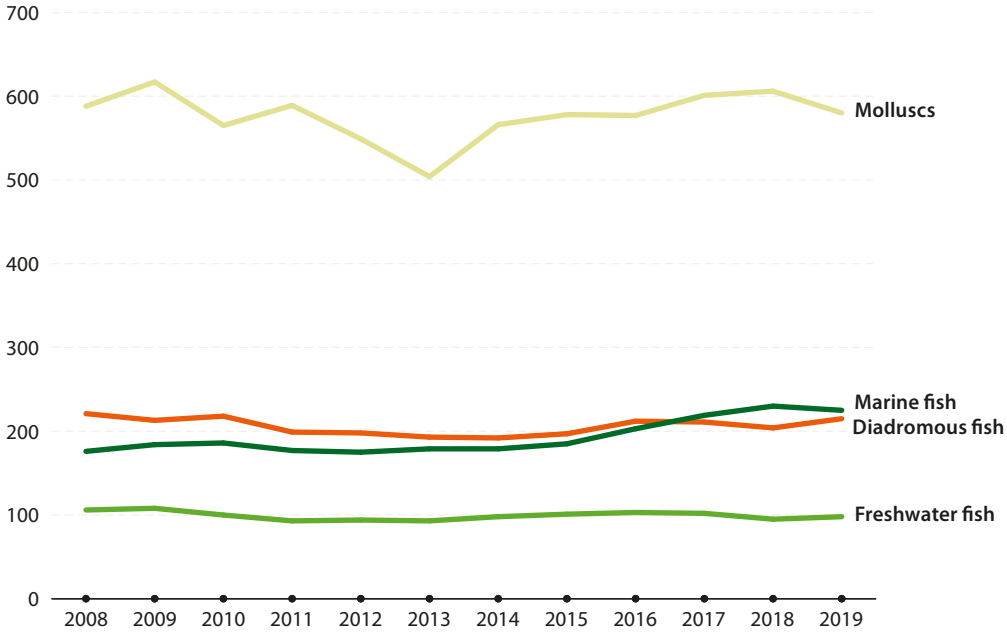
In 2019, close to one quarter (22.5 %) of the EU's total catch in the Atlantic, Northeast was made by the Danish fleet. A further third of the total catch in the EU's principal fishing area was made by the French (13.7 %), Dutch (10.6 %) and Spanish (9.8 %) fleets. Within the Mediterranean and Black Sea, about two fifths of the EU catch was taken by the Italian fleet (40.1 %), with the fleets of Greece (18.9 %), Spain (17.4 %) and Croatia (14.7 %) together accounting for just over half of the total catch in this area.

Note: including estimates made for the purpose of this publication. CZ, LU, HU, AT and SK: landlocked.

Source: Eurostat (online data code: fish_ca_main)

Developments of aquaculture production

(thousand tonnes, EU, 2008-2019)



Aquaculture is the production of fish and other aquatic organisms like molluscs and crustaceans under controlled conditions, both inland and in marine areas.

The EU's aquaculture production for all fishery products was estimated at 1.11 million tonnes of live weight equivalent in 2019. Output generally fluctuated at just over one million tonnes during the period from 2008 to 2019. Production stood at a low of 972 thousand tonnes in 2013, but then rose during four consecutive years to a peak of 1.14 million tonnes in 2017. There was a modest decline (down 0.8 %) in 2018, which accelerated in 2019 (down 1.6 %, equivalent to a fall of 19 thousand tonnes).

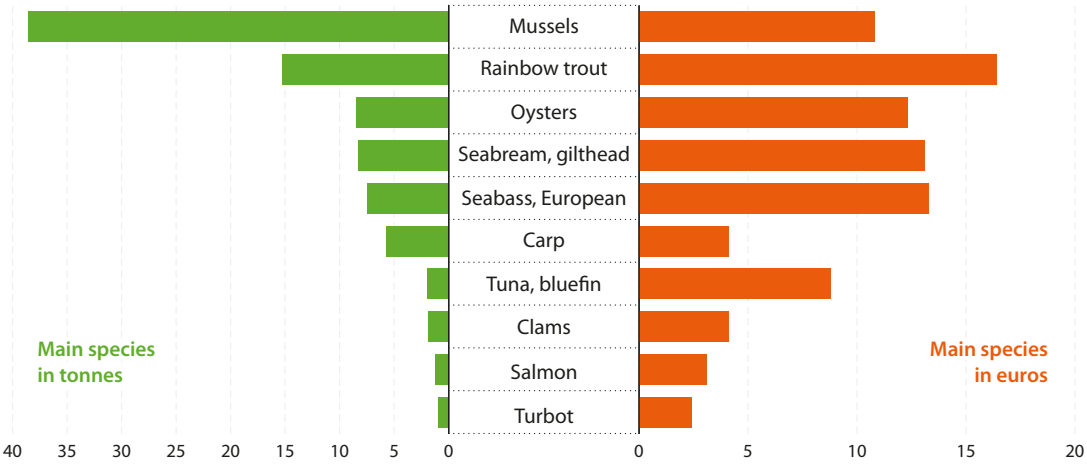
Molluscs (for example mussels, oysters or clams) accounted for just over half (51.8 %) of the EU's total aquaculture production in 2019, while marine fish accounted for around one fifth (20.1 %) of the EU total. Diadromous fish — species that migrate between seawater and freshwater — had the next highest share of EU aquaculture production (19.2 %), followed by freshwater fish (8.8 %); the farming of crustaceans was negligible in EU waters.

Note: estimates made for the purpose of this publication. Crustaceans: not significant.

Source: Eurostat (online data code: fish_aq2a) and the European Market Observatory for Fisheries and Aquaculture (EUMOFA)

Main species of aquaculture production

(%, EU, 2019)



The EU produced 431 thousand tonnes of farmed mussels in 2019. This equated to almost two fifths (38.6 %) of the EU's total aquaculture output, considerably higher than the shares recorded for rainbow trout (15.3 %) and oysters (8.5 %).

The production of rainbow trout was valued at EUR 577 million in 2019, which was more than any other species farmed and equivalent to 16.4 % of the EU's aquaculture production value. Different species fetch different prices and this explains why, for example, the relative share of mussels in value terms was considerably lower, at 10.8 % of the EU total, than in quantity terms. By contrast, the relatively high price of bluefin tuna resulted in a share in value terms (8.8 % of the EU total) that was more than four times as high as in quantity terms (2.0 % of the EU total).

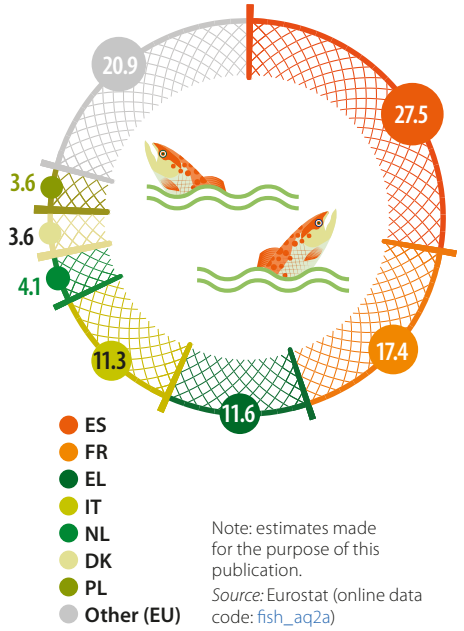
Note: estimates made for the purpose of this publication. Different scales are used for the two units presented in the chart.

Source: Eurostat (online data code: fish_aq2a)

Share of Member States in EU aquaculture production

(% based on tonnes, 2019)

Aquaculture plays an important role in most EU Member States that border the Mediterranean and Black Sea but is highly specialised in individual Member States. In 2019, Spain (27.5 %), France (17.4 %), Greece (11.6 %) and Italy (11.3 %) together accounted, in quantity terms, for more than two thirds of the EU's aquaculture output. The quantity of aquaculture production in Norway (1.45 million tonnes in 2019) exceeded that for the whole of the EU (1.11 million tonnes) and was almost exclusively composed of farmed salmon.



Note: estimates made for the purpose of this publication.

Source: Eurostat (online data code: fish_aq2a)

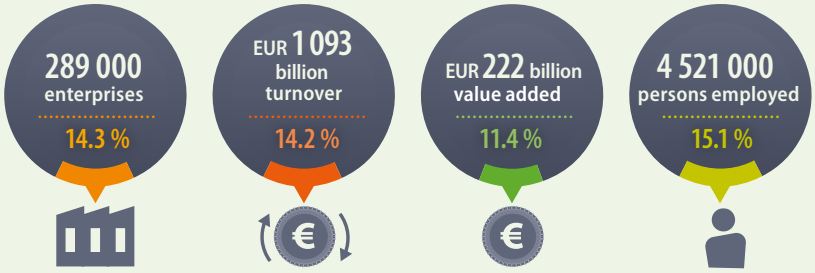
For more information on fishery statistics, please refer to the Statistics Explained article.

5 Processing of food and beverages

Key figures for the EU

Size of F&B processing

(EU, 2018)



% share of manufacturing total

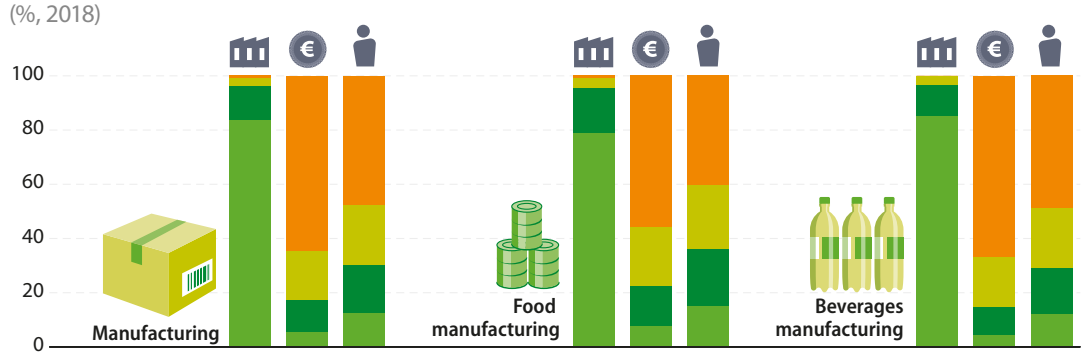
Source: Eurostat (online data code: sbs_na_ind_r2)

The food system is much wider than primary agricultural production; it also covers food and drink preparation and sales. Within the context of the EU's *Farm to Fork Strategy*, food and beverage (F&B) processors are encouraged to increase the availability and affordability of healthy, sustainable food, by changing the types and nutritional composition of the food they produce, their choice of suppliers, or their production methods.

In 2018, there were 289 thousand F&B processing enterprises in the EU, equivalent to 14.3 % of all manufacturing enterprises. The value of their turnover was EUR 1 093 billion, of which EUR 222 billion was added value. As such, in 2018 the value added of F&B processors was around 30 % higher than that of agriculture (EUR 170 billion, at producer prices). Some 4.5 million people were employed in F&B processing (15.1 % of the total number of persons employed in manufacturing).

Key size class indicators

(%, 2018)



Number of enterprises
Value added
Number of persons employed

Large
Medium-sized
Small
Micro

Note: includes estimates made for the purpose of this publication.

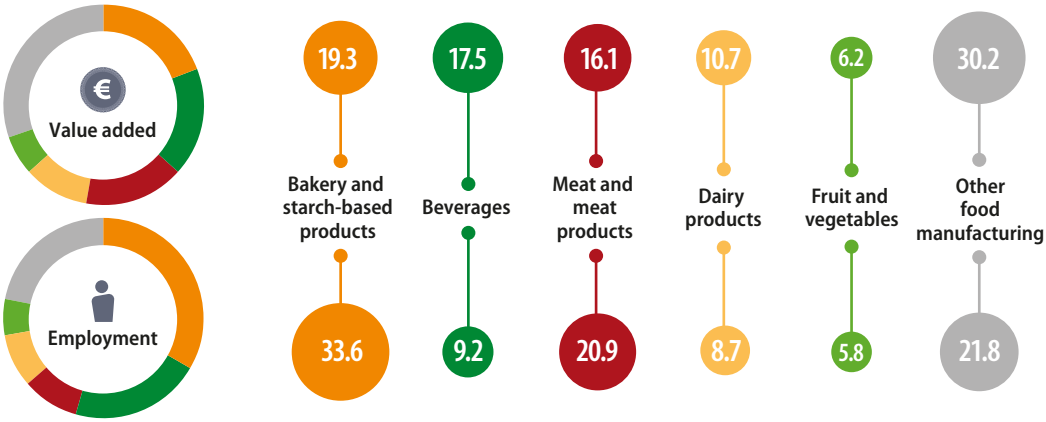
Source: Eurostat (online data code: sbs_sc_ind_r2)

Most F&B processors in the EU are relatively small enterprises serving local or national markets. By contrast, there are a few very large F&B processors characterised by global brands with considerable market reach.

The vast majority of the EU's F&B processors were micro or small enterprises that employed fewer than 50 persons. By contrast, large enterprises — employing 250 or more persons — accounted for 55.8 % of the total value added in food processing, and for an even higher share (67.0 %) of the added value in beverage processing.

Structure of F&B processing

(%, EU, 2018)



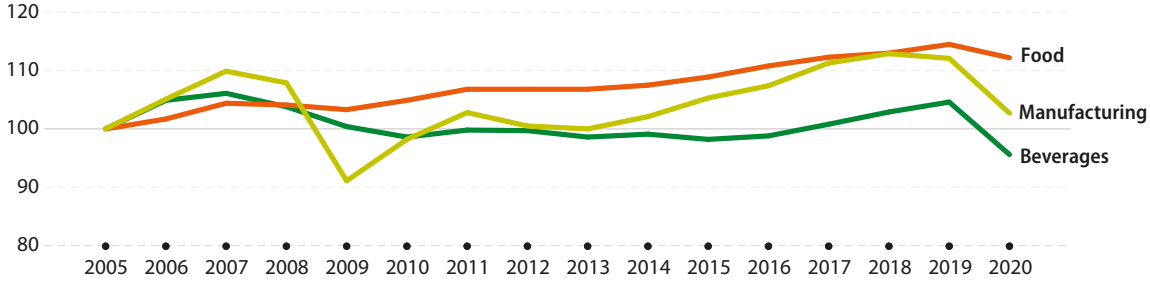
Source: Eurostat (online data code: sbs_na_ind_r2)

In 2018, around one third (33.6 %) of the EU's F&B processing workforce was employed in the manufacture of bakery and starch-based products (for example bread, cakes, biscuits, pasta and noodles). The next highest share was recorded for the manufacture of meat and meat products (20.9 %).

Around one fifth (19.3 %) of the value added by EU F&B processors was generated within the manufacture of bakery and starch-based products, closely followed by the manufacture of beverages (17.5 %) and the manufacture of meat and meat products (16.1 %).

Volume index of production

(2005 = 100, EU, 2005-2020)



The production index shows the development of output; price developments are removed in order to show real changes. The level of output of EU food manufacturing had a much more uniform development between 2005 and 2020 than the output of manufacturing as a whole or from beverage manufacturing. A downturn in economic activity often has a greater impact on purchases of non-essential items, whereas demand for essentials — such as staple food products — is more likely to be maintained. The considerable decline (-8.6 %) in the output of beverage manufacturing in 2020 reflects a fall in demand linked at least in part to the closure of F&B serving businesses during parts of the COVID-19 pandemic and to restrictions when they were allowed to operate.

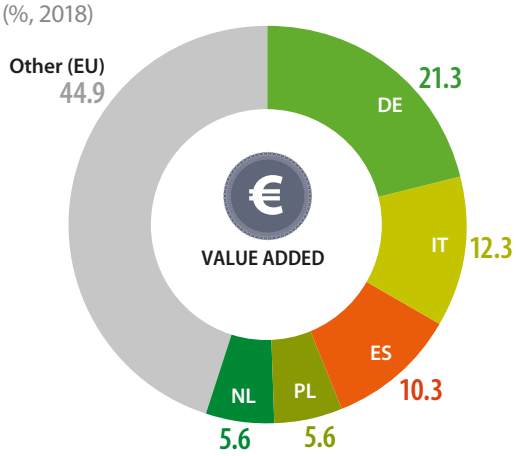
Note: index originally compiled with 2015 = 100; rescaled to 2005 = 100.

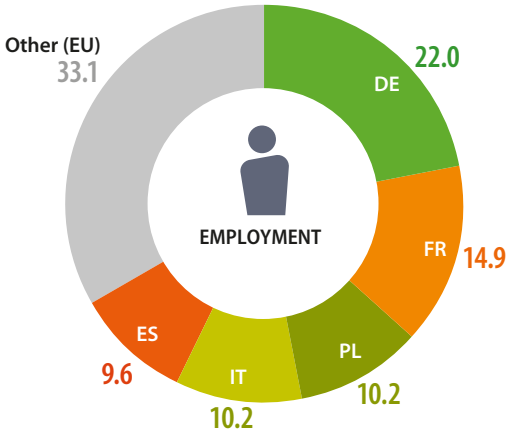
Source: Eurostat (online data code: sts_inpr_a)

Value added and employment in the EU Member States

Share of EU F&B manufacturing

(%, 2018)

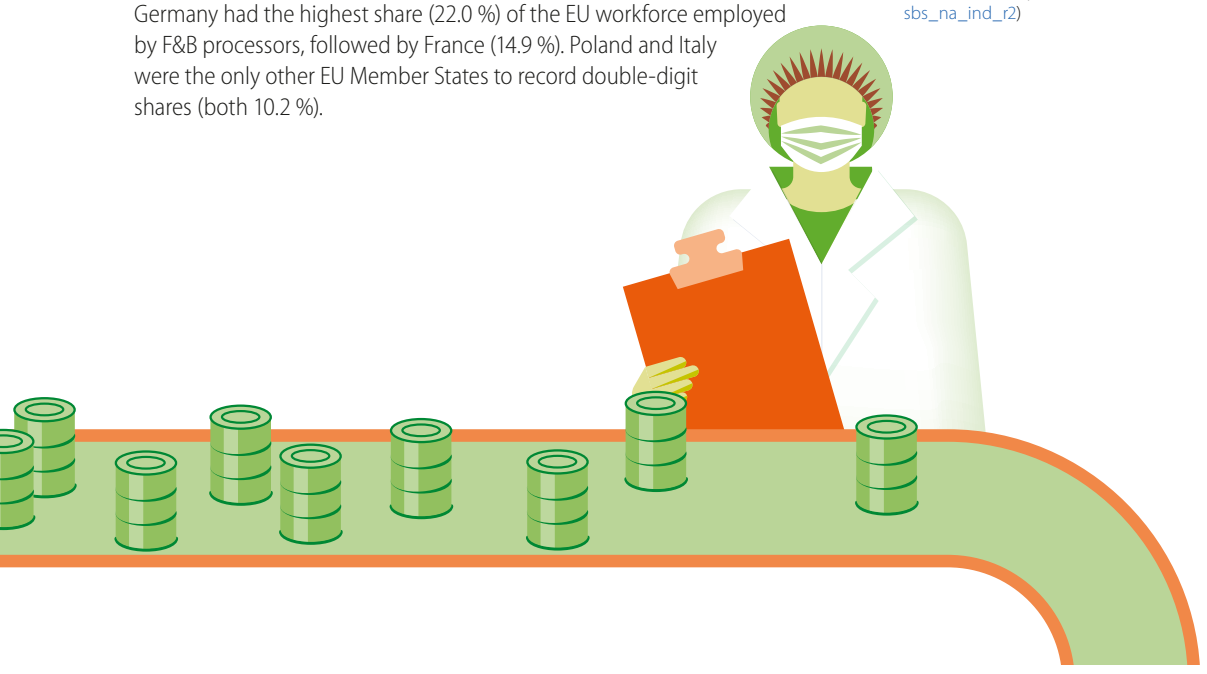


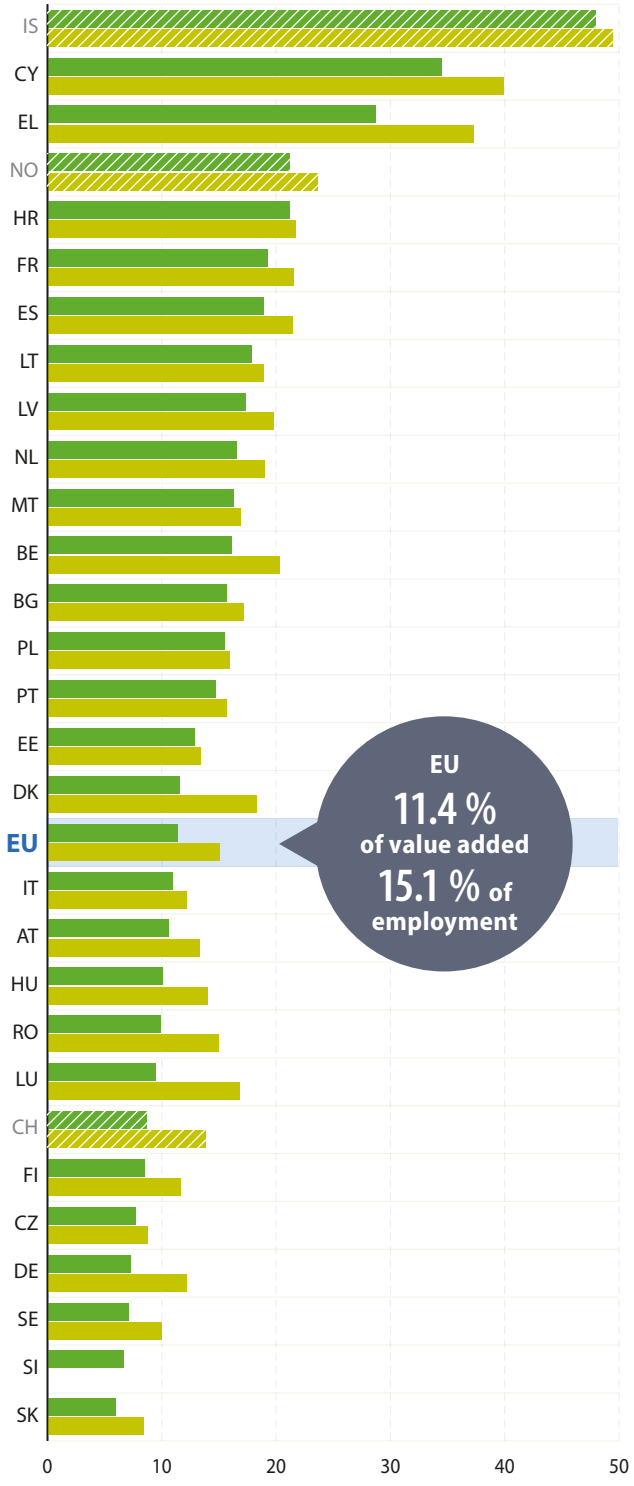


Although 2018 data on value added by F&B processing enterprises in France are not available, the corresponding figure in 2017 was 10 % higher than that for Germany and greater than for any other Member State. In 2018, Germany accounted for a 21.3 % share of the EU's added value for F&B processing, the next highest shares being for Italy (12.3 %) and Spain (10.3 %). In 2018, Germany had the highest share (22.0 %) of the EU workforce employed by F&B processors, followed by France (14.9 %). Poland and Italy were the only other EU Member States to record double-digit shares (both 10.2 %).

Note: IE, FR and FI, not available for value added (estimates included in other EU Member States); IE, SI and FI, not available for employment (estimates included in other EU Member States).

Source: Eurostat (online data code: sbs_na_ind_r2)





Share of F&B processing within manufacturing

(%, 2018)

Value added
Employment

F&B processing employed 15.1 % of the EU's manufacturing workforce in 2018 and accounted for an 11.4 % share of manufacturing value added. Several EU Member States recorded a much higher share of manufacturing activity concentrated within F&B processing. This was most notably the case in Cyprus and Greece, where more than one third of the manufacturing workforce was employed in F&B processing. At the other end of the scale, F&B processing provided work to no more than 1 in 10 people across the manufacturing workforces of Sweden, Czechia and Slovakia.

In 2018, the contribution of F&B processors to manufacturing employment was, in each of the EU Member States, consistently higher than their contribution to manufacturing value added. In other words, F&B processors were characterised by levels of labour productivity below the manufacturing average. This can be explained by a number of factors, including relatively low average wages and salaries and high seasonal and part-time employment.

Note: ranked on value added.
IE: not available. FR: value added, 2017.
SI: employment not available.

Source: Eurostat (online data code: sbs_na_ind_r2)

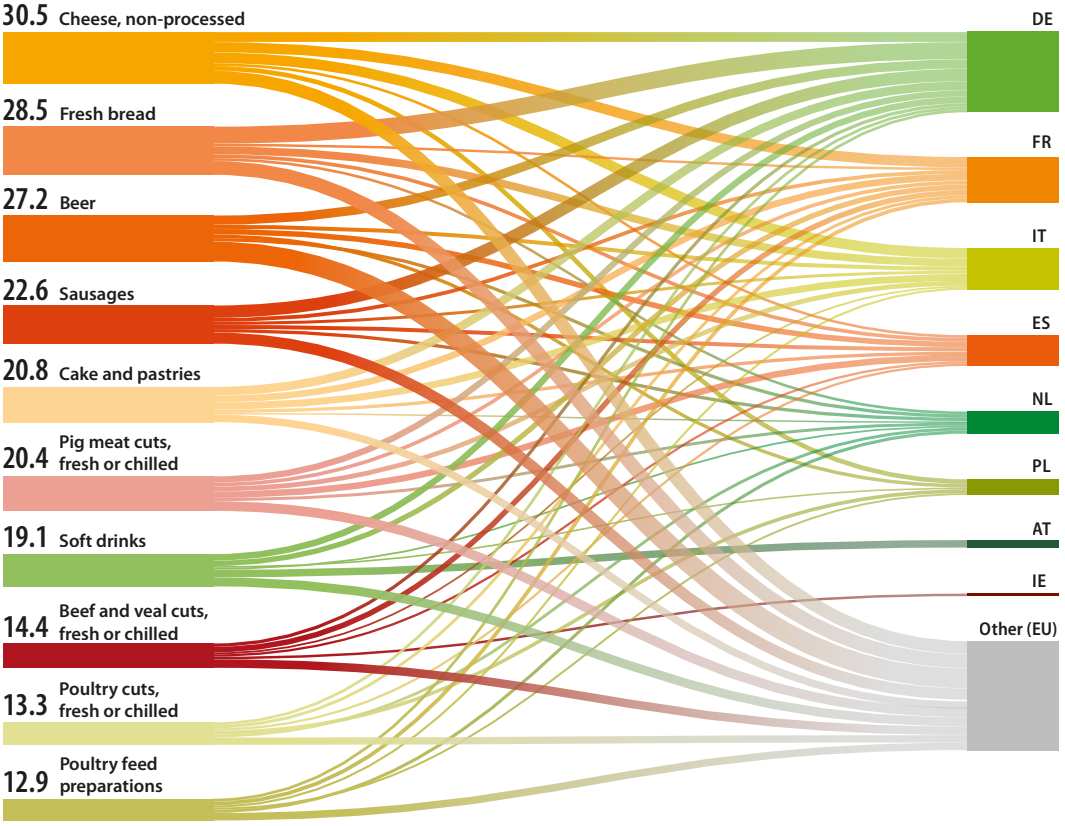
Manufactured F&B products

Principal producers of the top 10 manufactured F&B products

(EUR billion, 2020)

F&B processors manufacture a vast array of products that range from staple food products to luxury, sometimes high value items. Based on the Prodcom list for 2020, non-processed cheese — including, among many others, Brie, Edam, Feta or Gorgonzola — was the manufactured F&B product with the highest value (EUR 30.5 billion) of EU production. This product is of particular importance for dairy farmers. A majority of the non-processed cheese produced in the EU was manufactured by enterprises from Italy (EUR 6.3 billion), France (EUR 6.2 billion) and Germany (EUR 5.9 billion).

The second and third highest values of production were recorded for fresh bread and beer, with EU output valued at EUR 28.5 billion and EUR 27.2 billion respectively. These products are of importance for cereal producers, in particular, those growing wheat and rye for bread and barley for beer. Germany was the principal producer in the EU for both products, accounting for more than one third of the EU's fresh bread and approximately one fifth of its beer.



Note: the chart shows the top 5 producers for each selected product and the contribution from the remaining EU Member States. The category of other EU Member States includes estimates for those Member States for which data are not available.

Fresh bread: SE, not available. Beer: BE, IE, FR and SI, not available. Sausages: DK and SE, not available. Cake and pastries: BE, not available. Soft drinks: BE, not available. Poultry cuts, fresh or chilled: IE, LV and SI, not available. Poultry feed preparations: DK, not available.

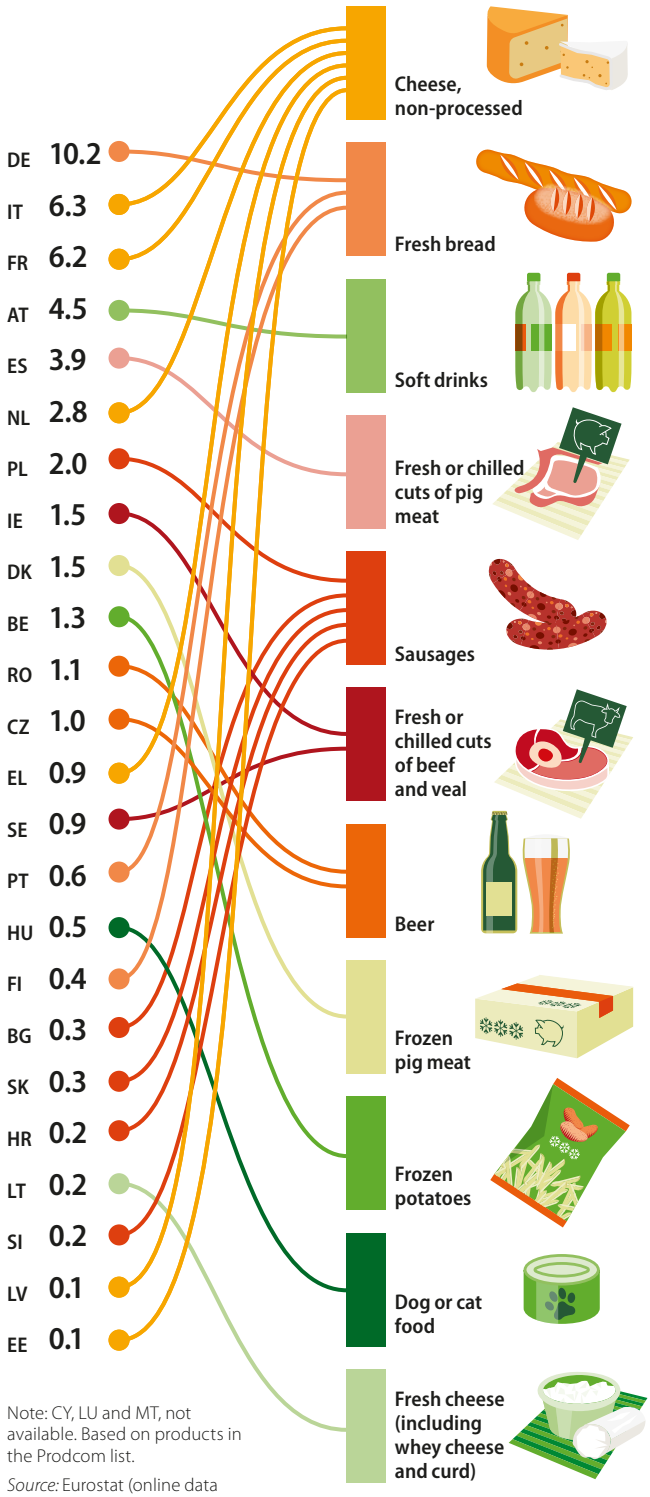
Source: Eurostat (online data code: DS-066341)

Largest manufactured F&B products

(EUR billion, 2020)

Greece, France, Italy and the Netherlands were among those EU Member States that reported their highest value of production among food products for non-processed cheese. Five EU Member States — Bulgaria, Croatia, Poland, Slovenia and Slovakia — were relatively specialised in the production of sausages, while Ireland and Sweden were specialised in fresh or chilled cuts of beef and veal and Spain in fresh or chilled cuts of pig meat.

Concerning beverage products, Austria had the highest value of production among EU Member States for soft drinks, France for the production of champagne, and Spain for the production of non-alcoholic beverages (other than soft drinks or milk).



Note: CY, LU and MT, not available. Based on products in the Prodcom list.

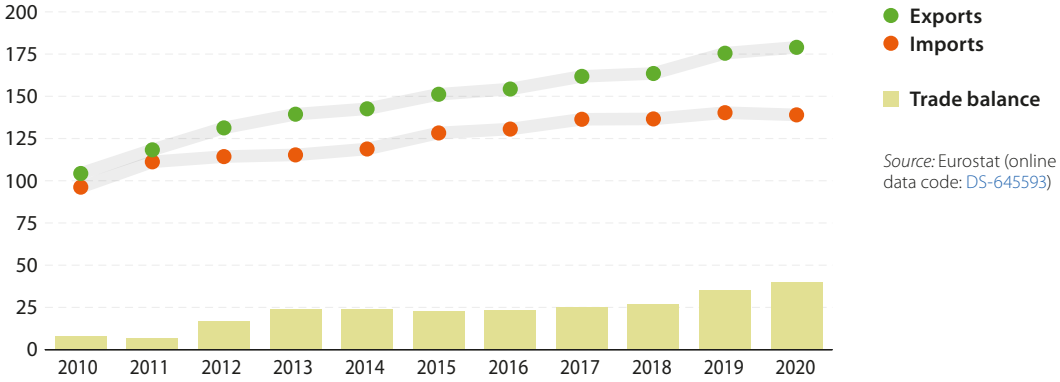
Source: Eurostat (online data code: DS-066341)

6 Trade in agricultural, fishery, food and beverage products

Trade and trade balance

Extra-EU trade developments for agricultural, fisheries and F&B products

(EUR billion, EU, 2010-2020)



Source: Eurostat (online data code: DS-645593)

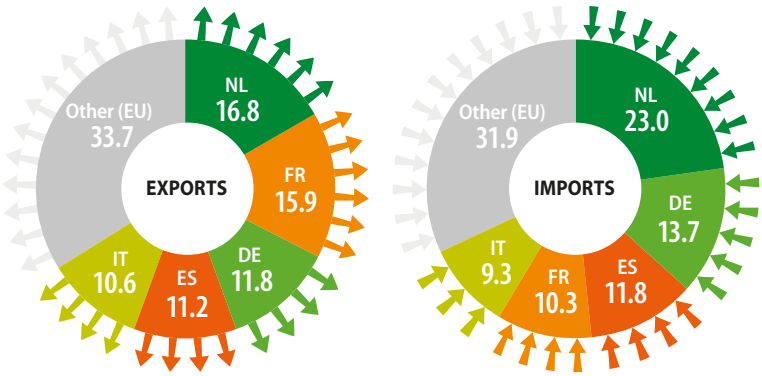
The EU aims to ensure there is a sustainability chapter in its international trade agreements. In doing so, it seeks to develop bilateral commitments, for example in areas such as animal welfare, food safety, cooperation and aid for developing countries, or fair trade access to markets.

In 2020, the EU exported to non-member countries (also referred to as extra-EU trade) agricultural and fisheries products as well as food and beverage (F&B) products that together were valued at EUR 179 billion. This was EUR 40.0 billion higher than the value of extra-EU imports of such products, with the EU's trade surplus widening for the fifth consecutive year. Agricultural, fisheries and F&B products accounted for 9.3 % of all exported goods that left the EU in 2020 and for 8.1 % of all goods imported into the EU.

Share of extra-EU trade in agricultural, fisheries and F&B products

(% based on value, 2020)

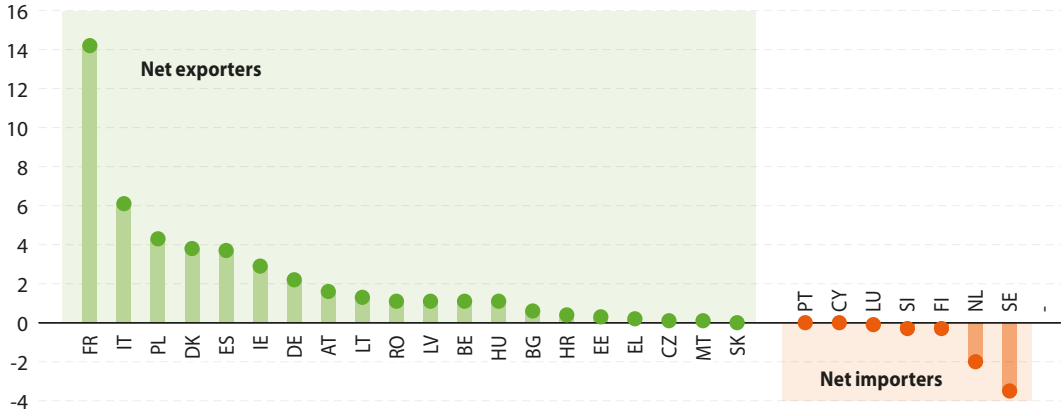
In 2020, the Netherlands accounted for 16.8 % of the EU's exports of agricultural, fisheries and F&B products to non-member countries and almost one quarter (23.0 %) of the EU's of these products. This reflects, in part, its favourable location as a logistics hub including the EU's largest sea freight port (Rotterdam), with goods imported from and exported to the rest of the world.



Source: Eurostat (online data code: DS-645593)

Extra-EU trade balance for agricultural, fisheries and F&B products

(EUR billion, 2020)

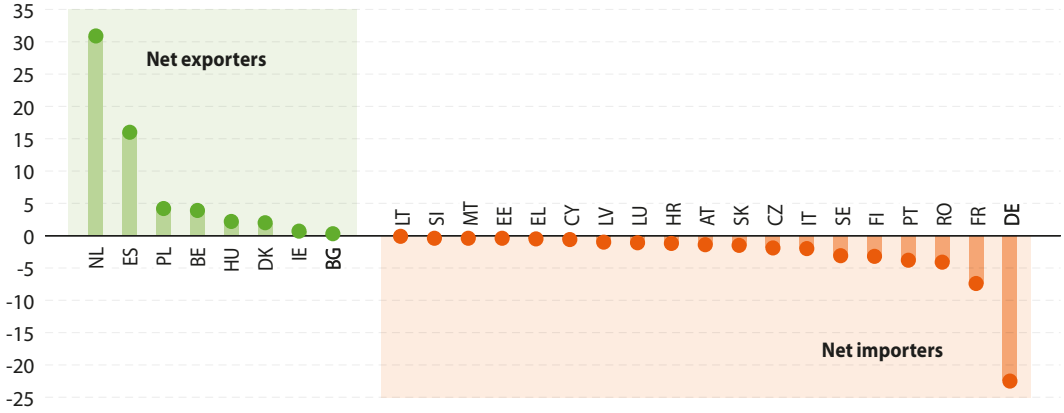


Most EU Member States recorded a trade surplus for agricultural, fisheries and F&B products with non-member countries; the highest extra-EU trade surpluses in 2020 were recorded by France (EUR 14.2 billion), Italy (EUR 6.1 billion) and Poland (EUR 4.3 billion). Sweden had the largest trade deficit in these products in 2020 (EUR 3.5 billion).

Source: Eurostat (online data code: DS-645593)

Intra-EU trade balance for agricultural, fisheries and F&B products

(EUR billion, 2020)



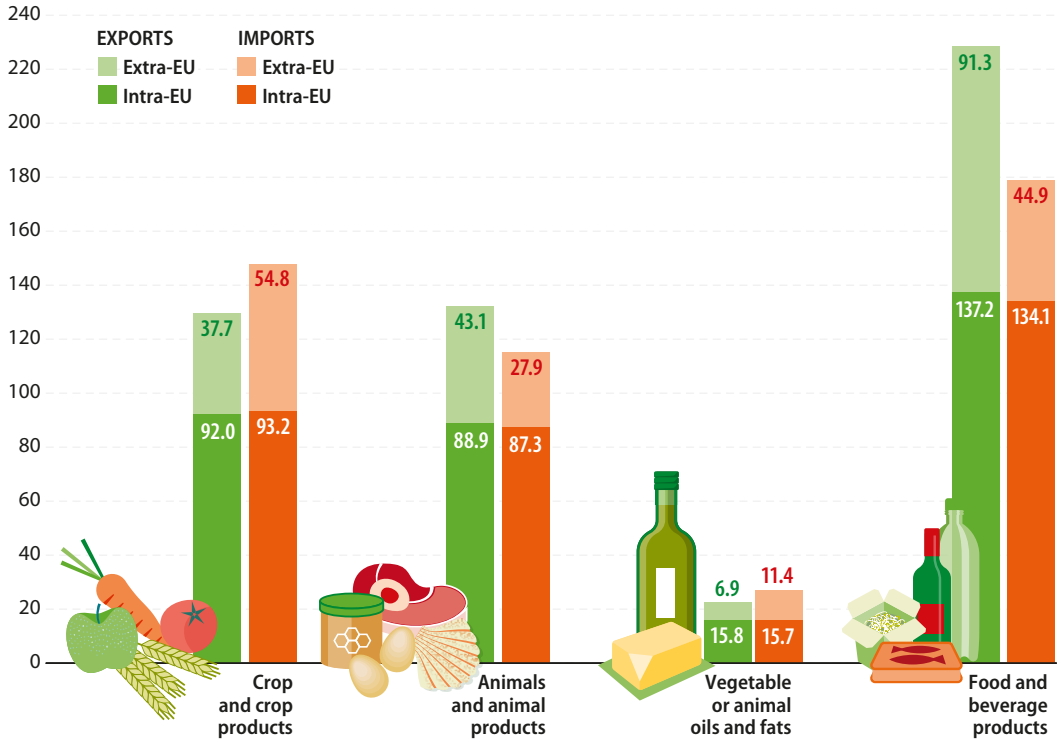
In 2020, more than two thirds of the EU's total trade in agricultural, fisheries and F&B products was between EU Member States (also referred to as intra-EU trade) reflecting, in part, the perishable nature of some products. The largest intra-EU trade surpluses in 2020 for agricultural, fisheries and F&B products were recorded by the Netherlands (EUR 30.9 billion) and Spain (EUR 16.0 billion); the large surplus for the Netherlands reflects the fact that goods imported from all over the world are re-exported to other EU Member States. By contrast, France (EUR 7.4 billion) and in particular Germany (EUR 22.5 billion) recorded the biggest intra-EU trade deficits for agricultural, fisheries and F&B products.

Source: Eurostat (online data code: DS-645593)

Traded products

Intra- and extra-EU trade in agricultural, fisheries and F&B products

(EUR billion, EU, 2020)



The EU generally imports raw, unprocessed agricultural and fishery products, while its principal exports are processed F&B products. For example, a number of crops and crop products, including varieties of nuts, fruit and coffee beans, can only be grown in certain climates outside the EU. This helps explain why the EU imported crop and crop products from non-member countries in 2020 that were valued at EUR 54.8 billion, some EUR 17.1 billion higher than its exports of these products. The EU also recorded a trade deficit for vegetable or animal oils and fats (EUR 4.5 billion).

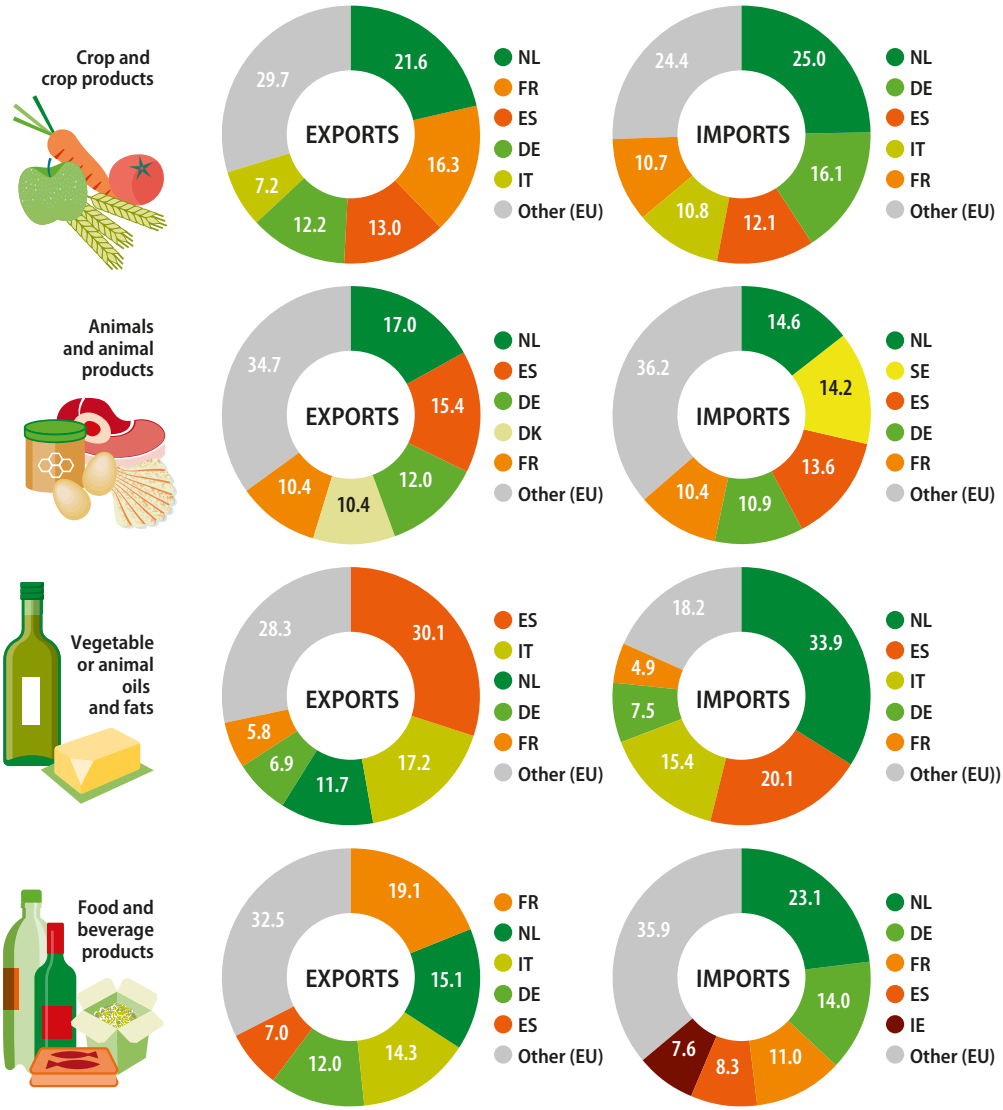
By contrast, the EU exported (processed) F&B products to non-member countries in 2020 that were valued at EUR 91.3 billion, which was more than twice as high as the value of its imports (EUR 44.9 billion) of these products. The EU also recorded a trade surplus for animals and animal products (EUR 15.2 billion).

Note: due to quasi-transit trade, the addition of intra-EU trade and extra-EU trade may lead to double counting. An example of this would be goods imported from China via the Netherlands, where they are cleared by customs for free circulation, before being dispatched to Germany. This would lead to the same goods being counted as imports by both the Netherlands and Germany. More precisely, they would appear in the Netherlands' extra-EU imports from China and intra-EU exports to Germany and in Germany's intra-EU imports from the Netherlands.

Source: Eurostat (online data code: DS-645593)

Share of EU Member States within extra-EU trade

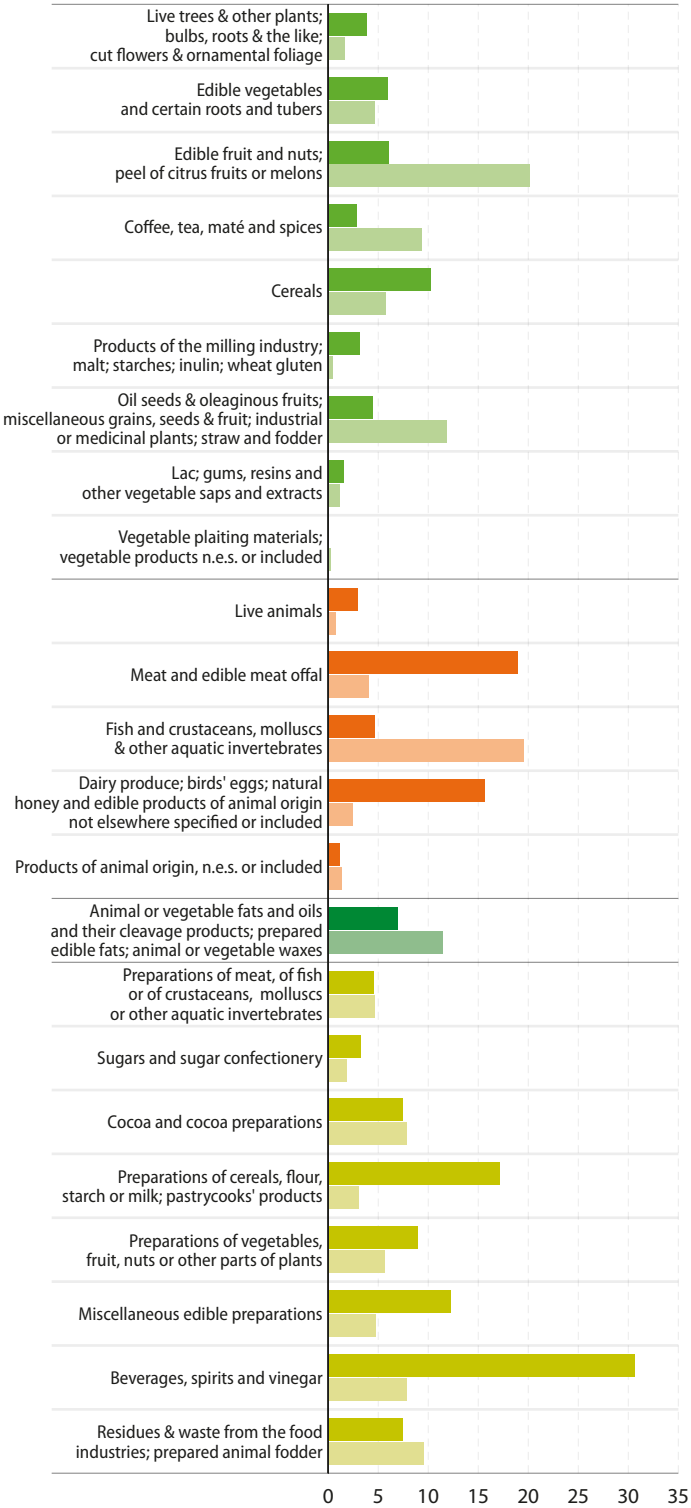
(% based on value, 2020)



Source: Eurostat (online data code: DS-645593)

The Netherlands role as a logistical hub for trade was evident for all four main product groups within agricultural, fisheries and F&B products: in 2020, the Netherlands recorded the highest share of extra-EU exports for crop and crop products (21.6 % of the EU total) and for animals and animal products (17.0 %), while Spain had the highest share of exports for vegetable or animal oils and fats (30.1 %), and France the highest share of exports for F&B products (19.1 %).

The Netherlands also recorded the highest share of extra-EU imports for vegetable or animal oils and fats (33.9 % of the EU total), crop and crop products (25.0 %), F&B products (23.1 %), and animals and animal products (14.6 %).



Extra-EU trade in agricultural, fisheries and F&B products

(EUR billion, EU, 2020)

Crop & crop products
Exports
Imports

Animals & animal products
Exports
Imports

Vegetable or animal oils & fats
Exports
Imports

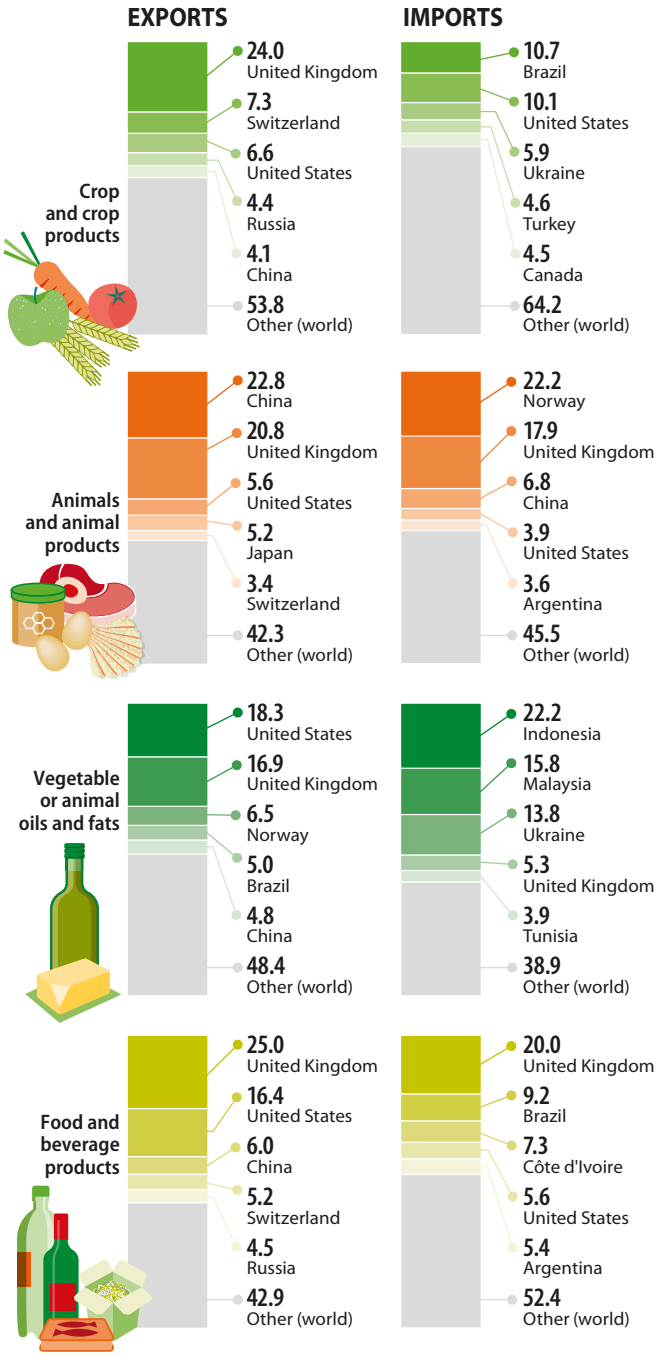
F&B products
Exports
Imports

A more detailed view of extra-EU trade in 2020 shows the EU's principal exports included beverages, spirits and vinegar (EUR 30.6 billion), meat and edible meat offal (EUR 18.9 billion) and preparations of cereals, flour, starch or milk (EUR 17.1 billion). The EU's principal imports included edible fruit and nuts (EUR 20.1 billion) and fish, crustaceans and aquatic invertebrates (EUR 19.5 billion).

The EU ran a sizeable trade deficit in 2020 for several crop and crop products, including: edible fruit and nuts (EUR 14.1 billion), oilseeds and oleaginous fruits (EUR 7.4 billion) and coffee, tea, mate and spices (EUR 6.6 billion). For animals and animal products, the EU's largest trade surpluses were recorded for meat and edible meat offal (EUR 14.9 billion) and dairy produce (including cheese, milk and yoghurts), birds' eggs and natural honey (EUR 13.2 billion), while the EU had a trade deficit of EUR 14.8 billion for fish, crustaceans and aquatic invertebrates. Among F&B products, the EU's largest trade surpluses were recorded for beverages, spirits and vinegar (EUR 22.8 billion) and preparations of cereals, flour, starch or milk (EUR 14.1 billion).

Source: Eurostat (online data code: DS-645593)

Trade partners



Source: Eurostat (online data code: DS-645593)

Extra-EU trade partners for agricultural, fisheries and F&B products

(%, EU, 2020)

EU exports of agricultural, fisheries and F&B products to the United Kingdom were valued at EUR 42.0 billion in 2020. This represented almost one quarter (23.4 %) of the EU's total exports of these products, with the next highest shares recorded by the United States (11.8 %) and China (9.6 %). The United Kingdom was the main export destination for crop and crop products (24.0 % of all EU exports within this product group) and F&B products (25.0 %), while China was the principal destination for animals and animal products (22.8 %) and the United States for vegetable or animal oils and fats (18.3 %).

EU imports of agricultural, fisheries and F&B products originating from the United Kingdom were valued at EUR 16.8 billion in 2020. This equated to 12.1 % of the EU's total imports of agricultural, fisheries and F&B products, with Brazil (7.7 %) and the United States (6.8 %) recording the next highest shares. Norway was the main origin for EU imports of animals and animal products (22.2 % of all EU imports within this product group, principally fish), while the United Kingdom was the main origin for F&B products (20.0 %), Brazil for crop and crop products (10.7 %) and Indonesia for vegetable or animal oils and fats (22.2 %, principally palm oil).

For more information on the extra-EU trade in agricultural goods, please refer to the Statistics Explained article.

7 Transport

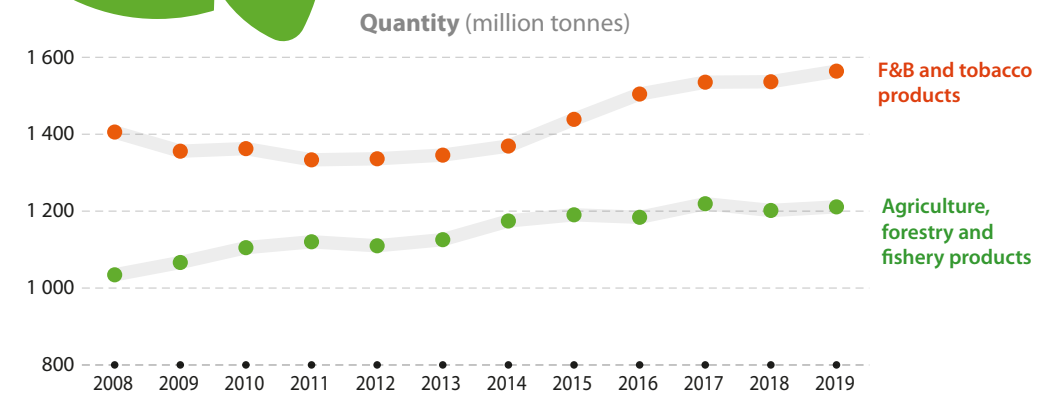
The data in this chapter concern goods transported on roads in the EU by heavy goods vehicles registered in the EU Member States or EFTA countries. Therefore, the figures do not take into account products transported by vehicles registered in other countries nor by vehicles below a certain threshold ([3]).

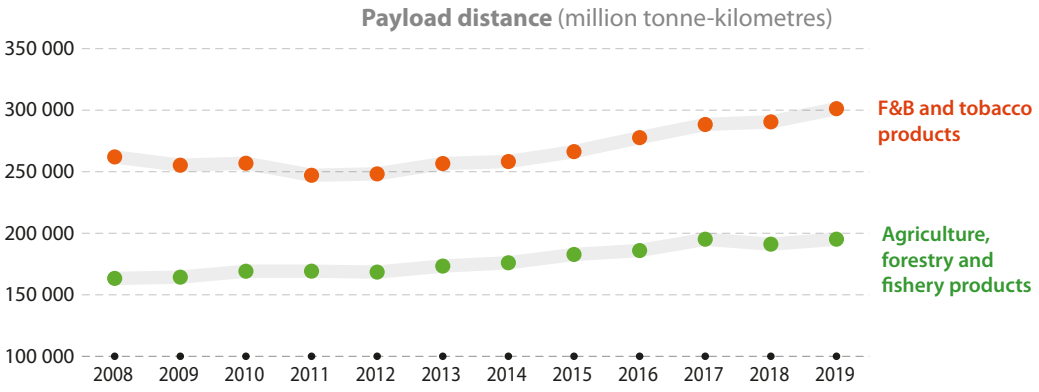
Road transport developments

(EU, 2008-2019)

About 1.2 billion tonnes of agriculture, forestry and fishery products were transported on roads in the EU in 2019, along with 1.6 billion tonnes of food, beverages and tobacco products (hereafter referred to as F&B and tobacco products). These figures cover the transport of goods produced in the EU as well as imports from outside the EU.

Between 2008 and 2019, the quantity of agriculture, forestry and fishery products transported by road in the EU increased on average by 1.4 % per year; for F&B and tobacco products, the average increase was 1.0 % per year. When taking account not only of the quantity transported, but also the distance these products were transported (the payload distance), average annual increases were 1.6 % for agriculture, forestry and fishery products and 1.3 % for F&B and tobacco products. The somewhat larger increases for the payload distance than the simple weight indicate that the average distance over which these products were transported increased.





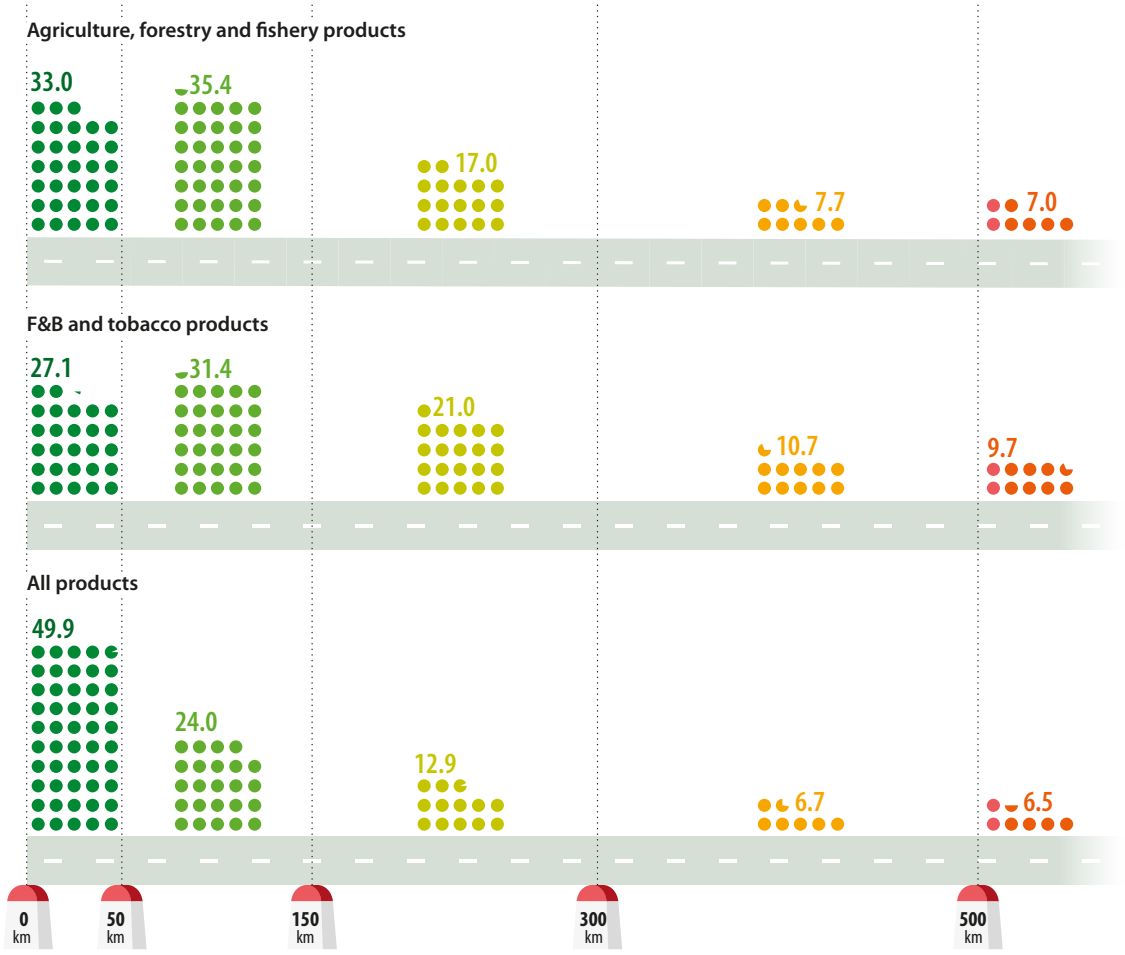
Note: goods transported by heavy goods vehicles registered in EU Member States.

Source: Eurostat (online data code: road_go_ta_tg)

([3]) Article 1 of Regulation (EU) No 70/2012 of the European Parliament and of the Council (https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32012R0070&from=EN) says 'Each Member State may exclude from the scope of this Regulation goods road transport vehicles whose load capacity or maximum permissible weight is lower than a certain limit. This limit may not exceed a load capacity of 3.5 tonnes or maximum permissible weight of 6 tonnes in the case of single motor vehicles.'

Distance of road transport for agriculture, forestry, fishery, F&B and tobacco products

(% based on tonnes, 2019)



The vast majority of agriculture, forestry and fisheries products (85.3 %) and F&B and tobacco products (79.6 %) were carried over distances of less than 300 km in 2019. Nevertheless, compared with all products (49.9 %), relatively small shares of agriculture, forestry and fisheries products (33.0 %) and F&B and tobacco products (27.1 %), were carried over distances of less than 50 km. Indeed, for all of the distances ranging from 50-149 km to 500 km or longer, the shares for agriculture, forestry and fisheries products and for F&B and tobacco products were above those for all products. As such, the average share of road transport for these two product categories over relatively long distances was above average.

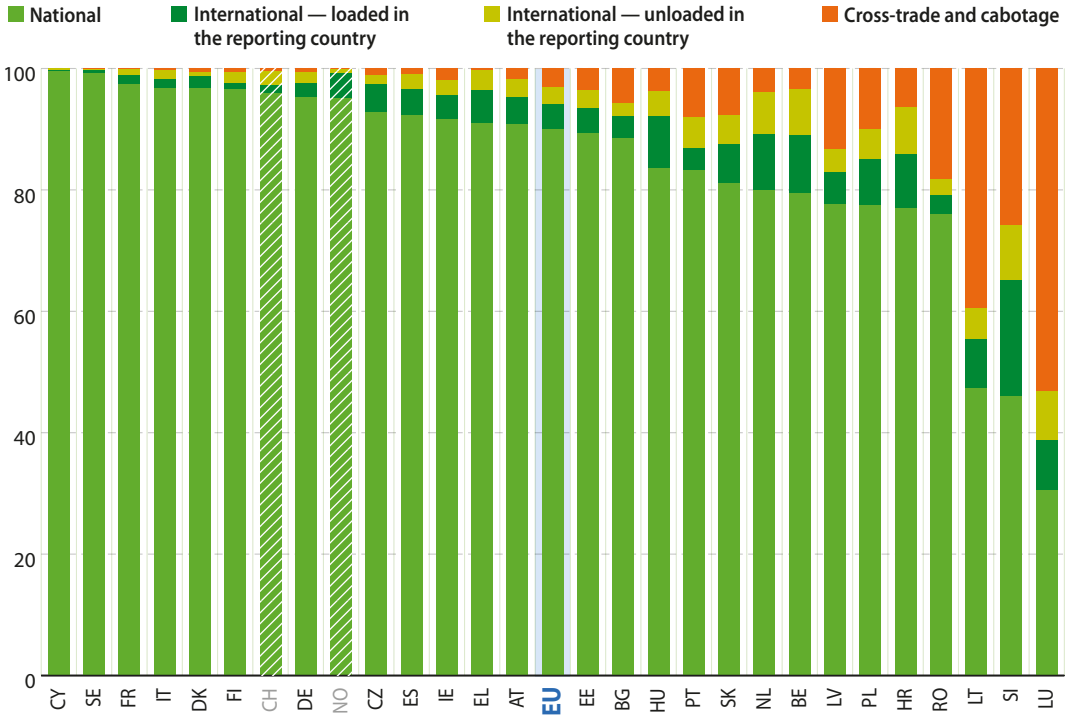
Within the context of the EU's *Farm to Fork Strategy*, the European Commission aims to support measures to reduce this dependence on long-haul transportation though the creation of shorter supply chains that enhance the resilience of regional and local food systems. The Commission also plans to revise legislation on animal transportation, with the goal of improving animal welfare.

Note: goods transported by heavy goods vehicles registered in EU Member States. F&B: food, beverages and tobacco. The shares do not always sum to 100 % due to rounding.

Source: Eurostat (online data code: road_go_ta_dctg)

Type of road transport for agriculture, forestry, fishery and F&B and tobacco products

(% based on tonnes, 2019)



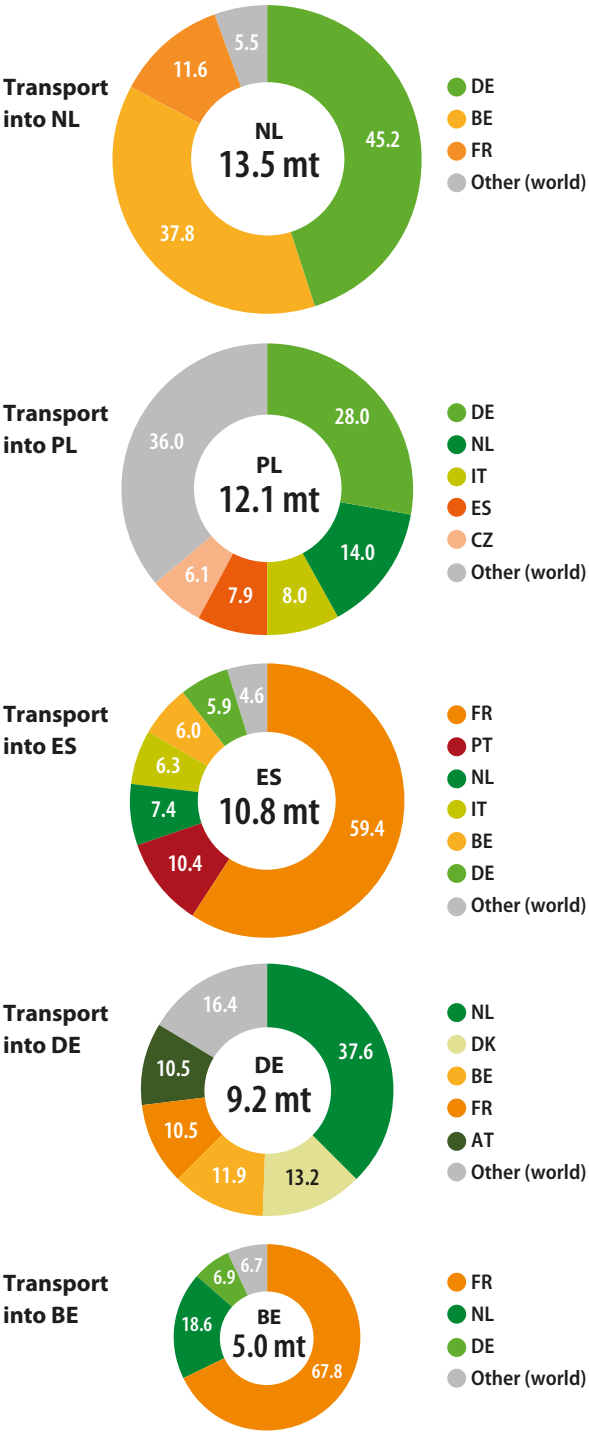
Note: the data show the type of operations for vehicles registered in the EU Member States and EFTA countries.

FI: Including data of low reliability for internationally loaded F&B and tobacco products. MT: Not available.

Source: Eurostat (online data codes: road_go_ta_tg, road_go_na_tgtt, road_go_ia_lgtt and road_go_ia_ugtt)

The vast majority (90.0 %) of the EU's road freight transport of agriculture, forestry, fishery, F&B and tobacco products in 2019 was national transport, in other words it was carried out within individual EU Member States by vehicles registered in that same Member State. The other types of transport that are shown concern a) loading and unloading of products transported across borders (internationally) for the country where a vehicle is registered and b) cabotage (transport within a country other than the vehicle registration country) and cross-trade (transport between a place of loading and a place of unloading in two different countries, neither of which is the country of vehicle registration). On average, the loading of goods for international transport accounted for 4.1 % of the total quantity of agriculture, forestry, fishery, F&B and tobacco products transported in the EU, while unloading after international transport accounted for 2.8 %. Other transport — cross-trade and cabotage — accounted for the remaining 3.1 % of the total.

National transport dominated road freight transport of agriculture, forestry, fishery, F&B and tobacco products in 2019 in all EU Member States. Only in a few of the smaller Member States, like Luxembourg, Slovenia and Lithuania, was the share of national transport below 75 %; the combined share for cabotage and cross-trade was particularly high in these three Member States, alongside high shares of international loading and unloading. Relatively high shares of international transport were also recorded for some Member States with large maritime freight ports, such as Belgium and the Netherlands.



International origins of agriculture, forestry, fishery, F&B and tobacco products transported by road

(% based on tonnes, 2019)

Information on the EU Member States where loading and unloading of international transport took place can illustrate transport routes. Based on the tonnes of goods unloaded in each Member State from vehicles registered in that same Member State, the largest destinations within the EU for the international road transport of agriculture, forestry, fishery, F&B and tobacco products were the Netherlands (17.4 %, or 13.5 million tonnes), Poland (15.6 %, or 12.1 million tonnes), Spain (13.8 %, or 10.8 million tonnes), Germany (11.8 %, or 9.2 million tonnes) and Belgium (6.5 %, or 5.0 million tonnes).

Many of these flows were between neighbouring EU Member States. This was clearly the case for products unloaded in the Netherlands and Belgium, where more than 90 % of their international road freight transport (carried by nationally-registered vehicles) came from just three neighbouring Member States. The origin of these products unloaded in Poland was more varied and widespread.

Note: the shares are calculated from the quantity of goods unloaded (after international road transport) from vehicles registered in the same EU Member State where the unloading takes place. Million tonnes denoted by 'mt'.

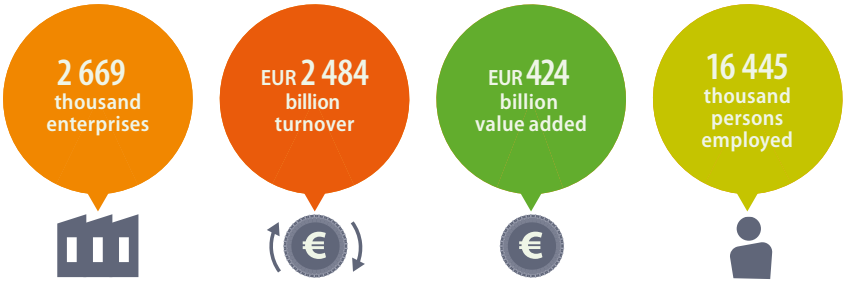
Source: Eurostat (online data code: road_go_ia_ugtt)

8 Wholesale, retail and services provision of food and beverages

Key figures for the EU

Size of wholesaling, retailing and serving of F&B

(EU, 2018)



Note: F&B covers food and beverages; for wholesaling and retailing, it also covers tobacco. These trade and service activities include NACE codes: 46.17, 46.3, 47.11, 47.2, 47.81 and 56.

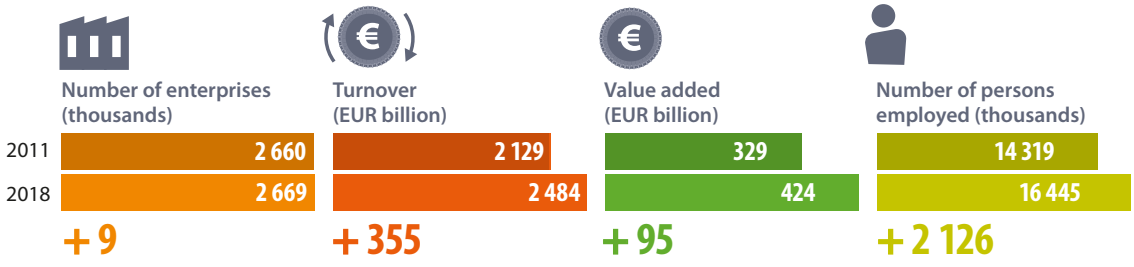
Source: Eurostat (online data codes: sbs_na_dt_r2 and sbs_na_1a_se_r2)

Enterprises trading or serving food and beverages (F&B) include F&B wholesalers and retailers (who also trade tobacco) as well as F&B serving businesses — such as restaurants, bars, cafés and caterers. As part of the EU's *Farm to Fork Strategy*, the European Commission will seek commitments from these businesses on a range of health and sustainability issues, for example: reformulating food products in line with guidelines for healthy diets; reducing their environmental footprint; or reducing packaging.

There were 2.7 million F&B trade and serving enterprises in the EU in 2018: 265 thousand were wholesalers, 888 thousand were retailers and 1.5 million were F&B serving enterprises. Together they generated EUR 2.48 trillion of turnover and added EUR 424 billion of value, while employing 16.4 million persons.

Wholesaling, retailing and serving of F&B

(EU, 2011 and 2018)



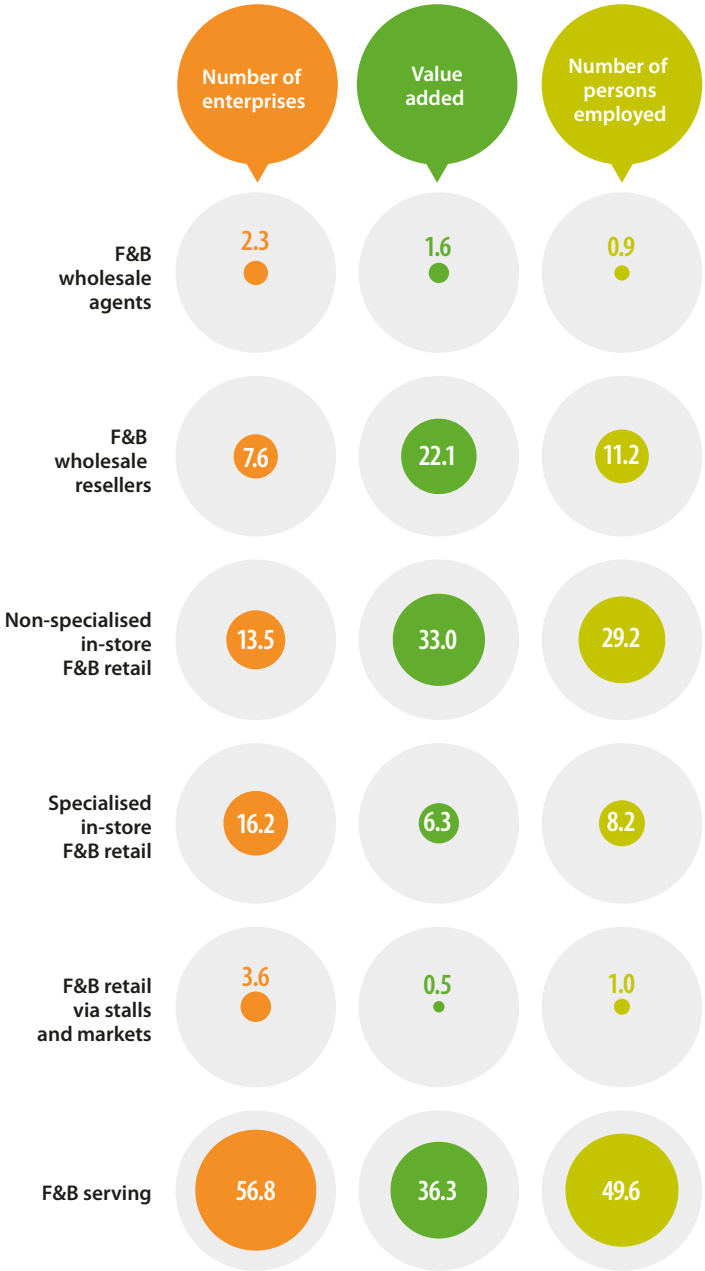
In 2018, the number of enterprises in F&B trade and serving in the EU was approximately the same as in 2011. However, on average, these enterprises grew; they employed an extra 2.1 million persons, increased their turnover by EUR 355 billion and their value added by EUR 95 billion.

Note: different scales are used for each indicator in the chart. Value added: data are presented for 2012 instead of 2011. Value added: data are presented for 2012 instead of 2011.

Source: Eurostat (online data codes: sbs_na_dt_r2 and sbs_na_1a_se_r2)

Structure of wholesaling, retailing and serving of F&B

(%, EU, 2018)



As is common for wholesaling in general, most F&B wholesalers in the EU in 2018 were resellers, buying and selling products. Wholesale resellers accounted for the vast majority of value added by F&B wholesalers as well as of its workforce; F&B wholesale agents (trading on commissions) had much lower shares.

The most common type of F&B retailer was specialised in-store retailers, such as greengrocers, butchers, fishmongers, bakers and tobacconists. These specialists outnumbered enterprises that were non-specialised in-store retailers with F&B predominating, such as general grocers and supermarkets. However, in terms of value added and employment, non-specialised in-store F&B retailers were considerably larger than their specialised competitors.

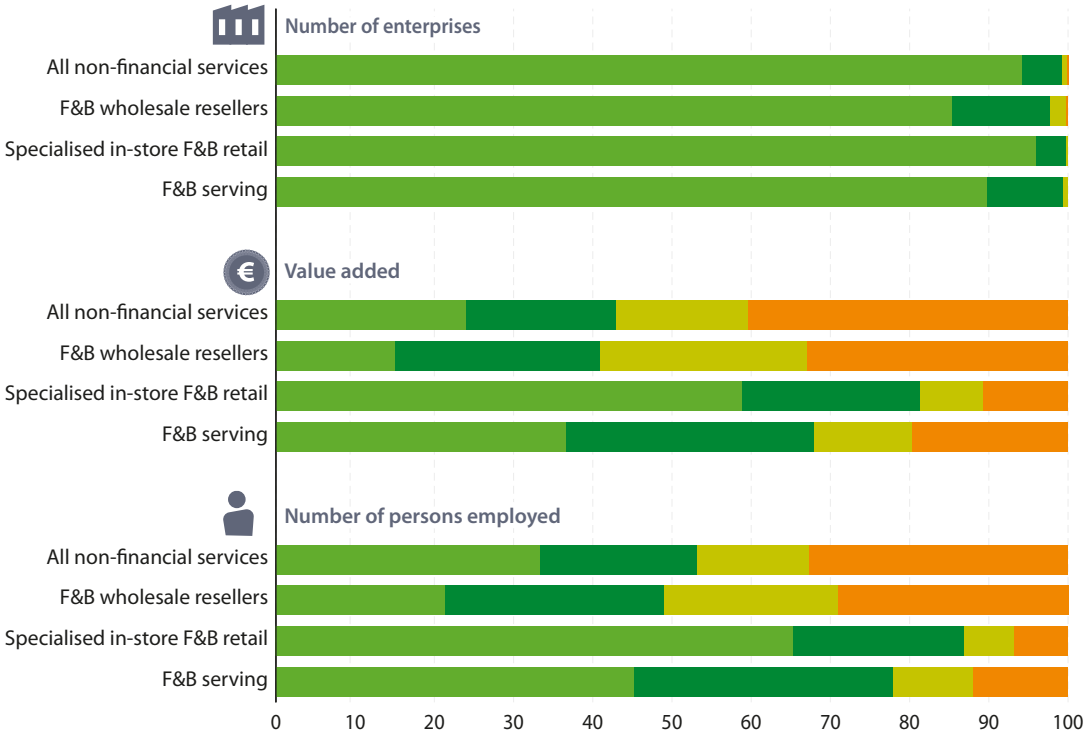
Whereas the majority (56.8 %) of all F&B trade and serving enterprises in the EU in 2018 were in the F&B serving activity, this activity's contributions to value added and employment were lower, 36.3 % and 49.6 % respectively.

Note: due to rounding, some of the totals do not sum to 100 %. F&B serving cover all forms of serving activities, including (among others): restaurants, mobile food outlets, caterers, bars and cafes.

Source: Eurostat (online data codes: sbs_na_dt_r2 and sbs_na_1a_se_r2)

Key size class indicators for wholesaling, specialised retailing and serving of F&B

(%, 2018)



Micro
Small
Medium-sized
Large

Note: includes estimates made for the purpose of this publication.

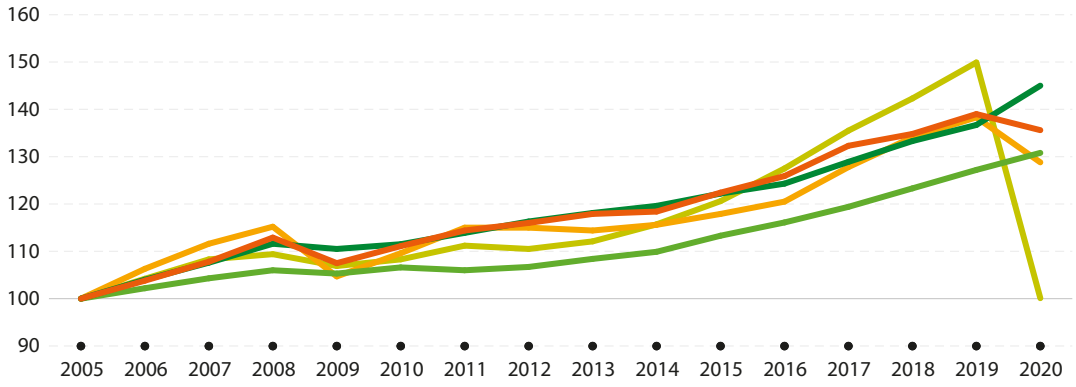
Source: Eurostat (online data codes: sbs_sc_dt_r2 and sbs_sc_1b_se_r2)

Enterprises can be classified according to their size in terms of employment: micro enterprises have less than 10 persons employed, small enterprises have 10-49, medium-sized enterprises have 50-249, and large enterprises have 250 or more. As is true for many non-financial services, F&B trade and serving were dominated in 2018 by micro enterprises. Among those F&B trade and serving activities for which size class data are available, wholesale resellers recorded the lowest share of micro enterprises and the highest share for each of the three larger size classes.

Micro enterprises also contributed less value added and employment among wholesale resellers than was the case for the other two F&B activities shown. By contrast, micro enterprises contributed more than half of total value added and employment among specialised in-store F&B retailers. The combined shares of micro and small enterprises accounted for just over two thirds of total value added and just over three quarters of total employment among F&B serving enterprises, considerably higher than the average for all non-financial services.

Turnover index for wholesaling, retailing and serving of F&B

(2005 = 100, EU, 2005-2020)



- **Non-specialised in-store F&B retail**
- **F&B wholesale resellers**
- **Specialised in-store F&B retail**
- **Non-financial services**
- **F&B serving**

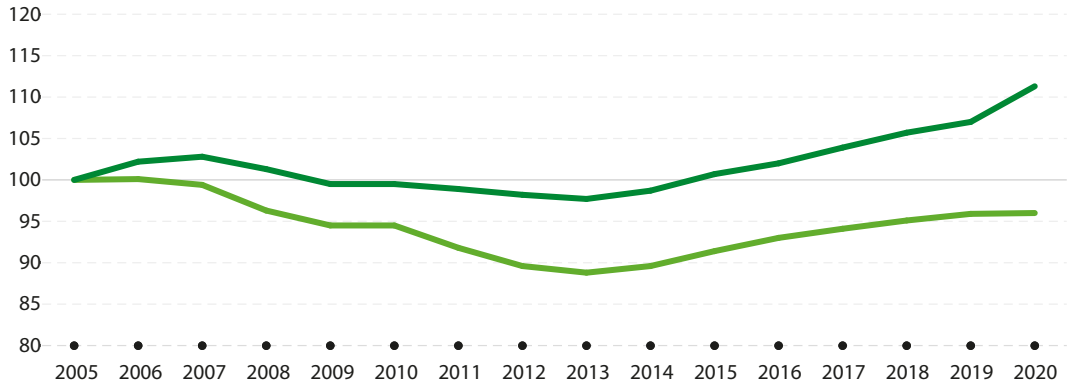
Note: index originally compiled with 2015 = 100; rescaled to 2005 = 100.

Source: Eurostat (online data codes: sts_trtu_a and sts_setu_a)

In current price terms, the turnover of enterprises in the EU serving F&B increased 50 % between 2005 and 2019, an average annual increase of 2.9 %. Turnover in this activity was particularly hard hit in 2020 by the COVID-19 crisis: governments of many EU Member States closed F&B outlets or imposed restrictions on this activity for large parts of the year. F&B wholesalers also experienced a fall in their turnover in 2020, whereas specialised and non-specialised F&B in-store retailers experienced increases in turnover, in part because people were eating more often at home.

Volume index of sales for retailing of F&B

(2005 = 100, EU, 2005-2020)



- **Non-specialised in-store F&B retail**
- **Specialised in-store F&B retail**

Note: index originally compiled with 2015 = 100; rescaled to 2005 = 100.

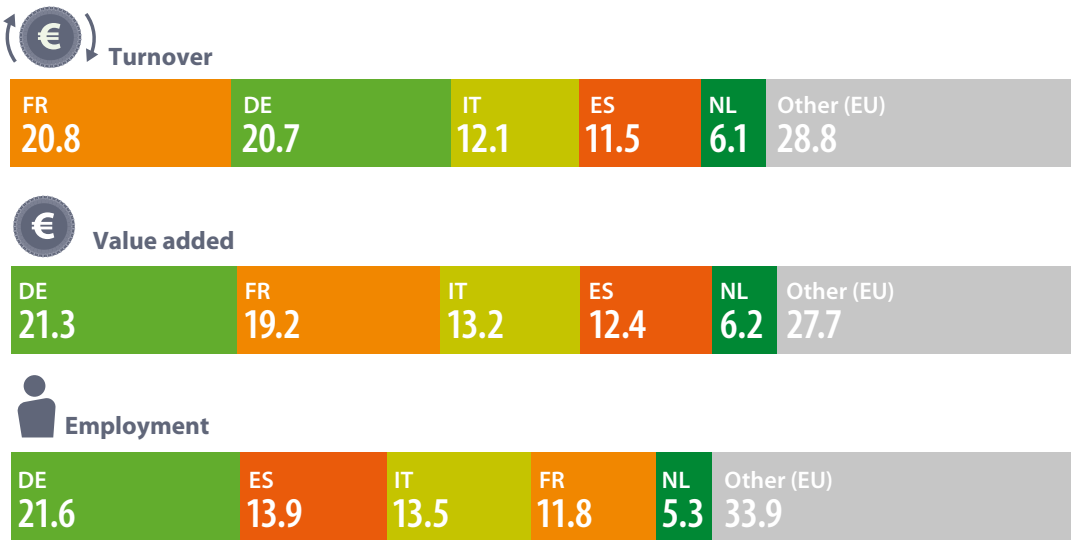
Source: Eurostat (online data code: sts_trtu_a)

For retail trade, a volume index of sales is available: this has been adjusted to remove the change in prices of the retailed products. After this adjustment, sales from specialised in-store F&B retailing in the EU were lower in 2020 than they had been in 2005, whereas sales from non-specialised in-store F&B retailing were higher.

Turnover, value added and employment in the EU Member States

Share of EU wholesaling, retailing and serving of F&B

(%, 2018)

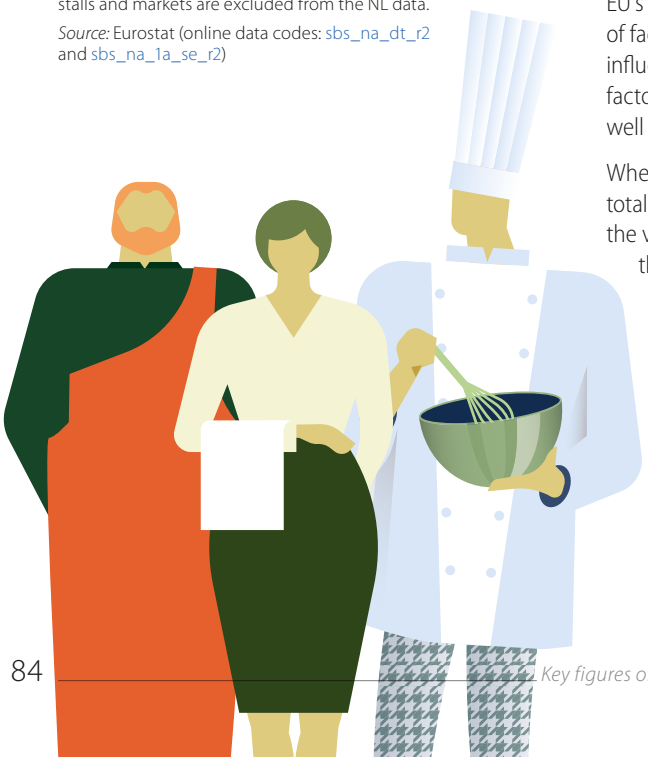


Note: turnover and value added shares for NL are underestimates, as wholesale agents and retail via stalls and markets are excluded from the NL data.

Source: Eurostat (online data codes: sbs_na_dt_r2 and sbs_na_1a_se_r2)

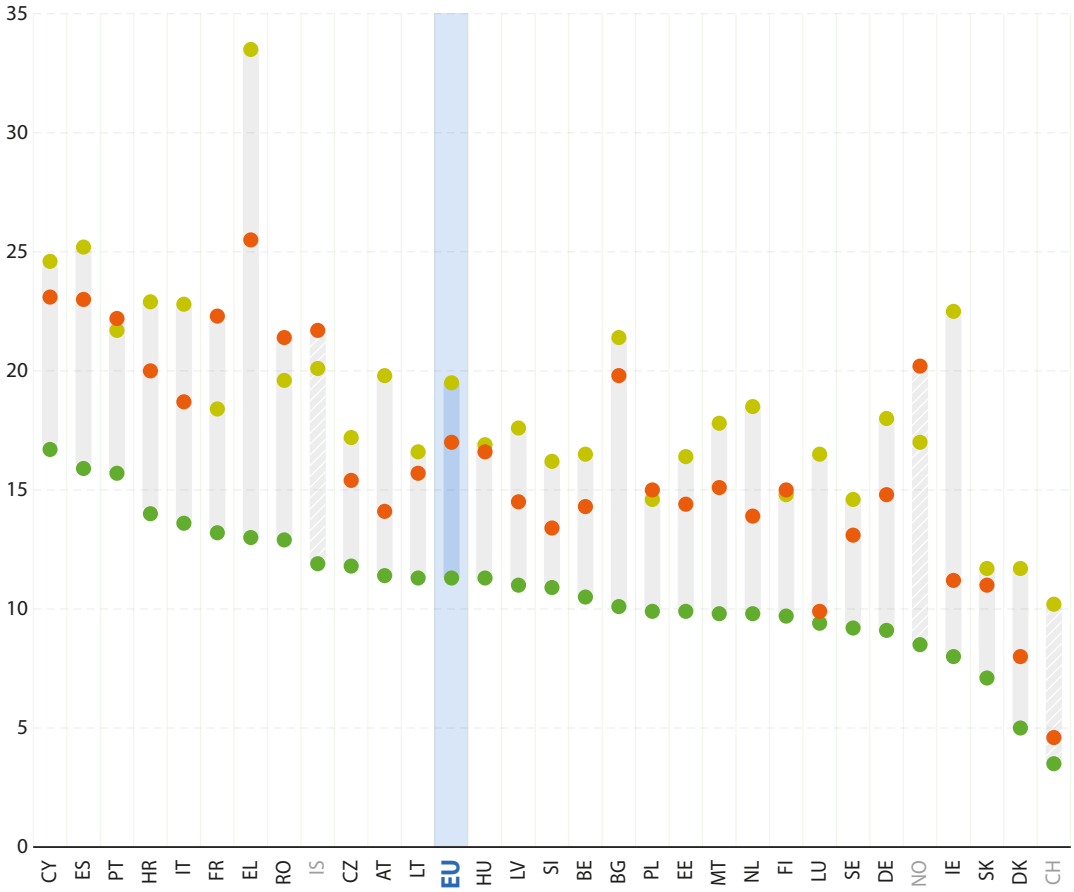
The relative size of each EU Member State within the EU's F&B trade and serving activities reflects a number of factors. While the size of the population clearly influences the overall level of sales, so do cultural factors related to the consumption of F&B products as well as differences in price levels.

Whereas France had the highest share of the EU's total turnover for F&B trade and serving in 2020, the value that it added from these sales was less than in Germany. Like Germany, Italy, Spain and the Netherlands all had greater contributions to the EU's value added than to its turnover. Given France's high shares of the EU's turnover and value added in F&B trade and serving, its employment share was particularly low; this was mainly due to a relatively low level of employment in F&B serving.



Share of wholesaling, retailing and serving of F&B within non-financial services

(%, 2018)



Employment
Turnover
Value added

Note: underestimates (due to one or more missing activities) for CZ, DK, EE, LU, MT, NL and CH.

Source: Eurostat (online data codes: sbs_na_sca_r2, sbs_na_dt_r2 and sbs_na_1a_se_r2)

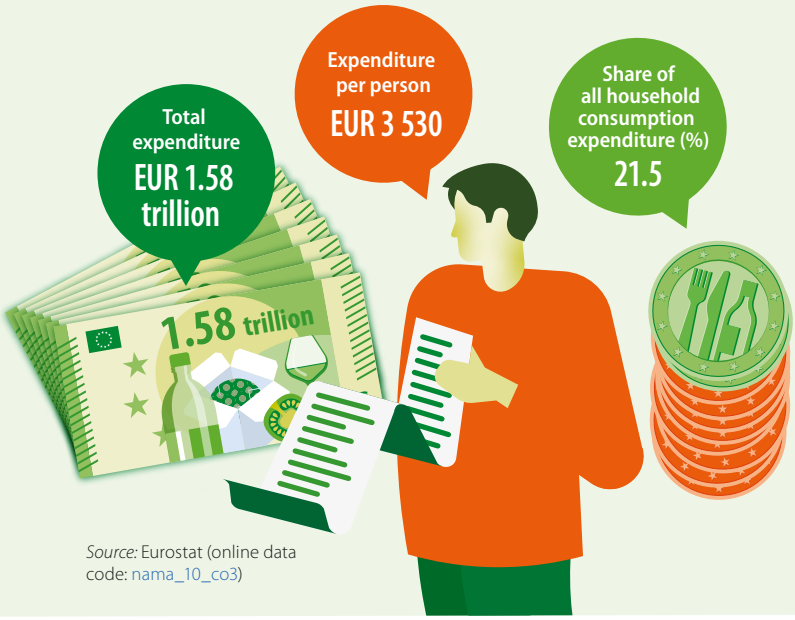
F&B trade and serving contributed 19.5 % of all employment within the EU's non-financial services sector in 2019, as well as 17.0 % of turnover and 11.3 % of value added. Note that some of these F&B activities have a high proportion of part-time or seasonal workers and that employment figures are based on a simple headcount.

F&B trade and serving made relatively large contributions to non-financial services in many EU Member States that are known for being tourist destinations, such as Cyprus, Spain, Portugal, Croatia, Italy, France and Greece. In some Member States, the high share of these activities may reflect other non-financial services being less developed, rather than a particularly high level of F&B trade and serving activities.

For value added, the highest share of F&B trade and serving within non-financial services in 2018 was 16.7 % in Cyprus. The highest share for turnover was 25.5 % in Greece where the highest share for employment (33.5 %) was also observed.

9 Human consumption of food and beverages

Household expenditure



Source: Eurostat (online data code: nama_10_co3)

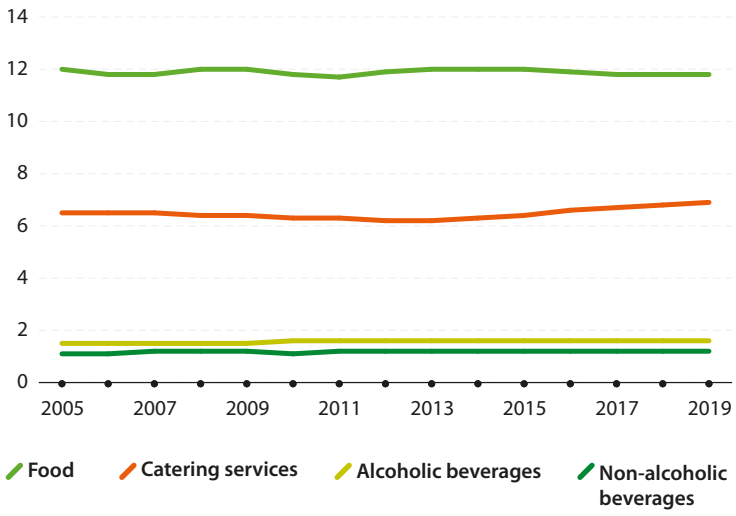
Annual household consumption expenditure on F&B and catering services

(EU, 2019)

Food and beverages (F&B) are recurrent expenditure items for all households. There is a wide variety of these products available to EU citizens, whether on a retail basis or provided as a service (referred to as catering in this chapter). Purchases often reflect local, regional and national cuisine and may play a role in cultural identity.

Share of total household consumption expenditure

(%, EU, 2005-2019)

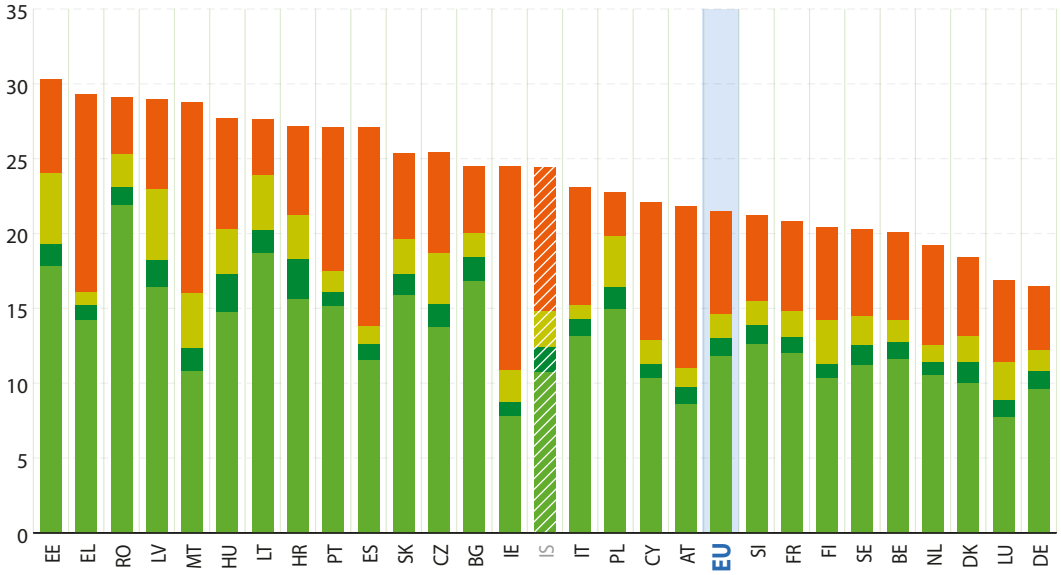


Source: Eurostat (online data code: nama_10_co3)

In the EU, final consumption expenditure of households on F&B and catering services was valued at EUR 1.58 trillion in 2019, equivalent to EUR 3 530 per person. Expenditure on these items accounted for 21.5 % of all household consumption expenditure: 11.8 % was on food, 6.9 % on catering services, 1.6 % on alcoholic beverages and 1.2 % on non-alcoholic beverages. These shares have remained fairly stable during the past 15 years (note the latest data available do not cover the COVID-19 crisis). The most notable development was a gradual increase in expenditure on catering services between 2013 and 2019.

Share of total household consumption expenditure

(%, 2019)



Catering services
Alcoholic beverages
Non-alcoholic beverages
Food

Note: tobacco and narcotics included in alcoholic beverages for MT.

Source: Eurostat (online data code: nama_10_co3)

There is considerable variation between the EU Member States as concerns the proportion of household expenditure used for F&B and catering services. The lowest shares in 2019 were in Germany (16.6 %) and Luxembourg (16.9 %) and the highest was in Estonia (30.2 %).

In most EU Member States, food was the largest of the F&B and catering services expenditure items. In 2019, exceptions were Ireland, Austria, Malta and Spain, where more was spent on catering services. Catering services were generally the second largest expenditure item, although in Poland and Latvia expenditure on alcoholic beverages was higher. Malta was the only Member State where more was spent on non-alcoholic than on alcoholic beverages.

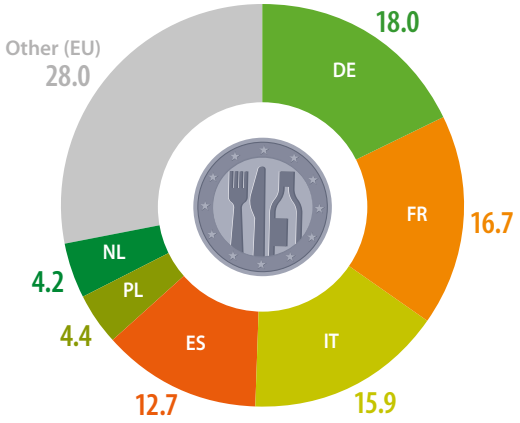
Share of EU household consumption expenditure on F&B and catering services

(%, 2019)

Germany had an 18.0 % share of the EU's total household consumption expenditure on F&B and catering services in 2019. Although this was the highest share in the EU, it was lower than Germany's share of the EU population. By contrast, France, Italy and Spain all recorded higher shares of the EU's household consumption expenditure on these items than their shares of the EU population.

Note: tobacco and narcotics included in alcoholic beverages for MT. Due to rounding, the total does not sum to 100.0 %.

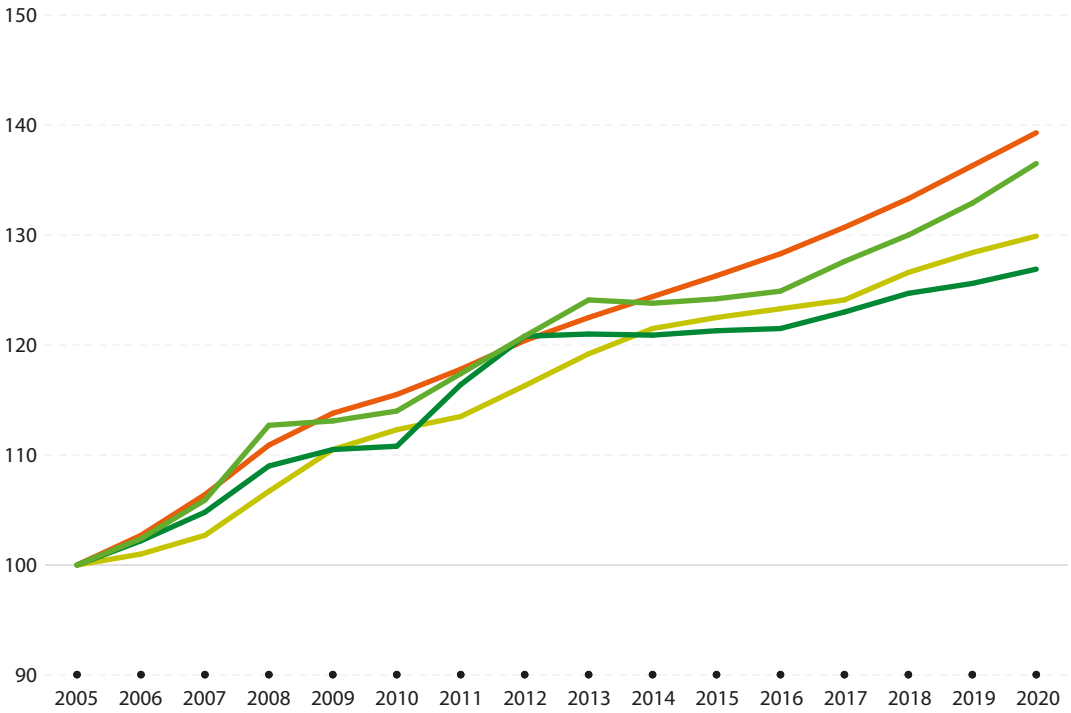
Source: Eurostat (online data code: nama_10_co3)



Consumer prices

Developments of consumer prices

(2005 = 100, EU, 2005-2020)



Note: index originally compiled with 2015 = 100; rescaled to 2005 = 100.

Source: Eurostat (online data code: prc_hicp_aind)

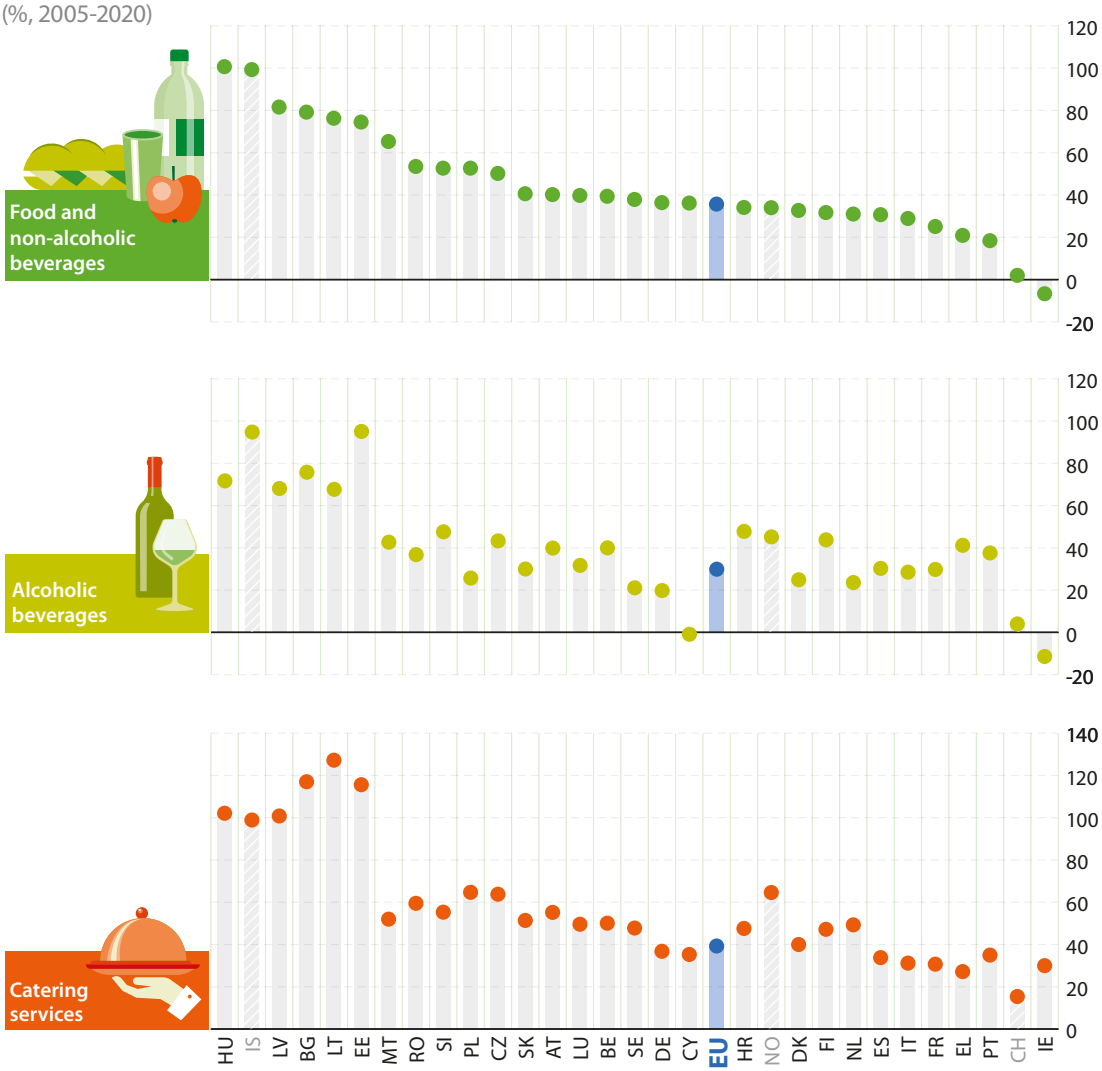
- **Catering services**
- **Food**
- **Alcoholic beverages**
- **Non-alcoholic beverages**

Price is a key consideration for many consumers when deciding what to eat and drink; they can therefore impact on the choice of more sustainable and healthy diets.

Between 2005 and 2020, consumer prices in the EU increased overall by 26.7 %. Consumer price increases for F&B and catering services were similar or higher: up 26.9 % for non-alcoholic beverages, 29.9 % for alcoholic beverages, 36.5 % for food and 39.3 % for catering services.

Overall change in consumer prices

(%, 2005-2020)



Note: ranked on food and non-alcoholic beverages.

Source: Eurostat (online data code: prc_hicp_aind)

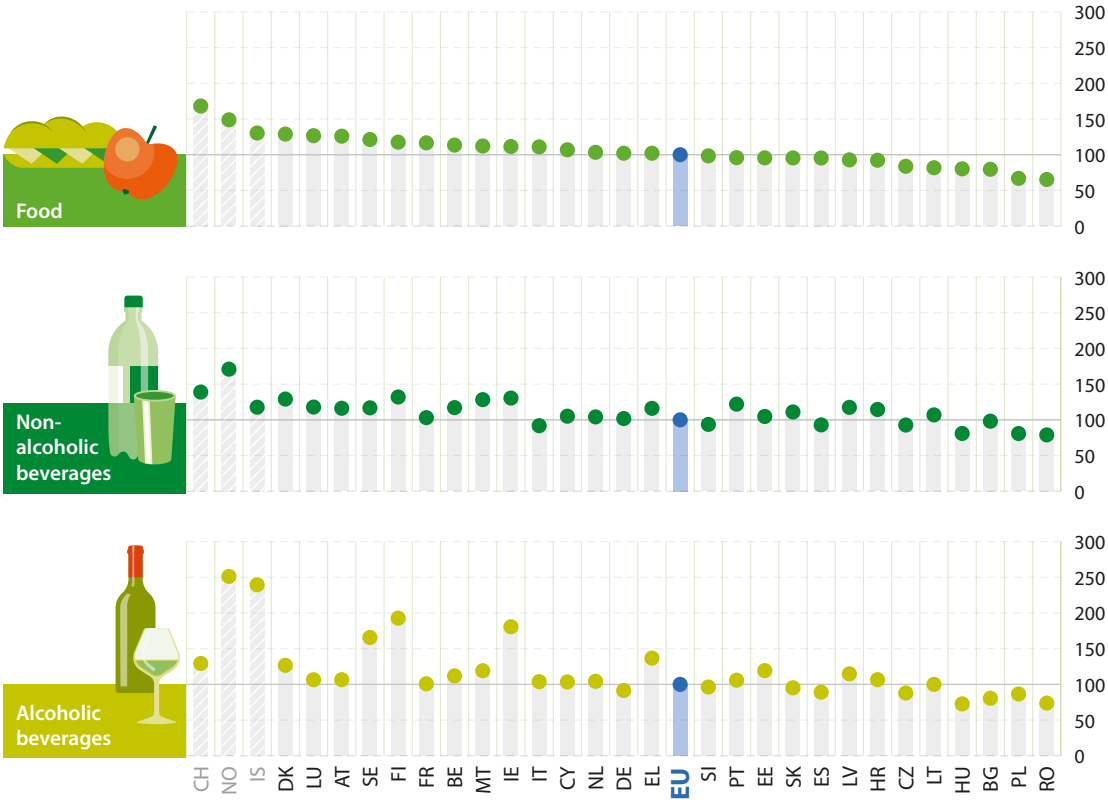
Consumer prices for food and non-alcoholic beverages doubled between 2005 and 2020 in Hungary and rose by at least 50 % in nine other EU Member States. By contrast, prices fell by 6.7 % in Ireland. For the EU as a whole, the increase in the price of food and non-alcoholic beverages was 35.7 %.

For alcoholic beverages, consumer prices nearly doubled between 2005 and 2020 in Estonia (up 95.1 %), and also increased by at least two thirds in Bulgaria, Hungary, Latvia and Lithuania. Cyprus recorded a slight fall (down 0.9 %) in the price of alcoholic beverages between 2005 and 2020, while prices in Ireland fell by 11.4 %.

Consumer prices of catering services at least doubled in Lithuania (where the increase was 127.2 %), Bulgaria, Estonia, Hungary and Latvia. The smallest increase in the price of catering services was in Greece, up 27.2 %.

Price level comparisons

(EU = 100, 2020)



Note: ranked on food.

Source: Eurostat (online data code: prc_ppp_ind)

Despite considerable differences in the developments of consumer prices over the last 15 years, a geographic pattern can still be observed in price levels for food in 2020. Central and Eastern EU Member States had price levels below the EU average, as did Spain and Portugal. The western, Nordic and remaining southern Member States had above average food prices. In Romania, food prices were 65.3 % of the EU average whereas in Denmark they were 128.9 % of the EU average.

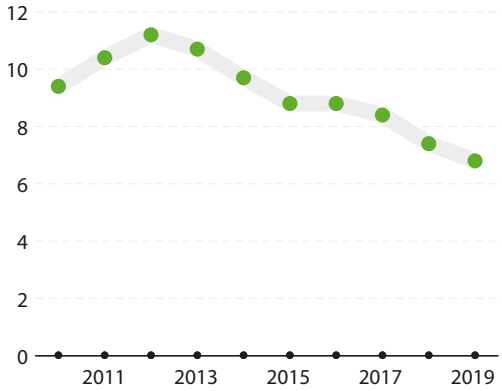
For non-alcoholic beverages, only eight EU Member States had price levels below the EU average in 2020. Four of the six most populous Member States had below average prices (Romania, Poland, Italy and Spain), while the other two (Germany and France) had prices that were slightly above the EU average. Price levels for non-alcoholic beverages ranged from 78.9 % of the EU average in Romania to 132.0 % in Finland.

A similar situation was observed for alcoholic beverages, with four of the six most populous EU Member States among the nine Member States where prices were below the EU average; France and Italy had price levels for alcoholic beverages that were just above the EU average. Price levels for alcoholic beverages ranged from 72.7 % of the EU average in Hungary to 192.7 % in Finland. The large range may in part reflect differences in taxation of alcoholic beverages.

Food poverty

Developments of food poverty

(%, EU, 2010-2019)



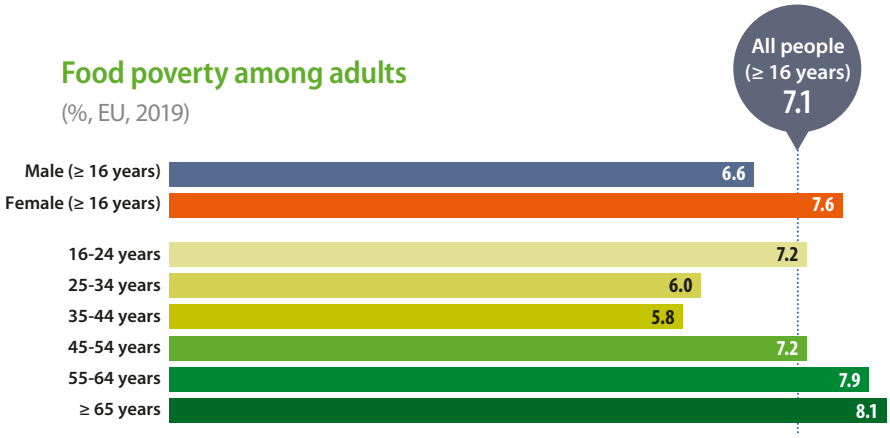
Note: inability to afford a meal with meat, chicken, fish or a vegetarian equivalent every second day.

Source: Eurostat (online data code: ilc_mdes03)

About 1 in every 15 people (6.8 %) within the EU in 2019 were unable to afford a meal with meat, chicken, fish, or a vegetarian equivalent every second day. This was the lowest share recorded during the period for which a time series is available (since 2010), and was 4.4 percentage points lower than the peak of 11.2 % observed in 2012.

Food poverty among adults

(%, EU, 2019)



Source: Eurostat (online data code: hlth_dm030)

Among people in the EU aged 16 years or over, this measure of food poverty was higher among women (7.6 %) than among men (6.6 %) in 2019, with the average for persons aged 16 years or over (7.1 %) slightly higher than that for the whole population (suggesting that children were slightly less likely to experience food poverty than adults).

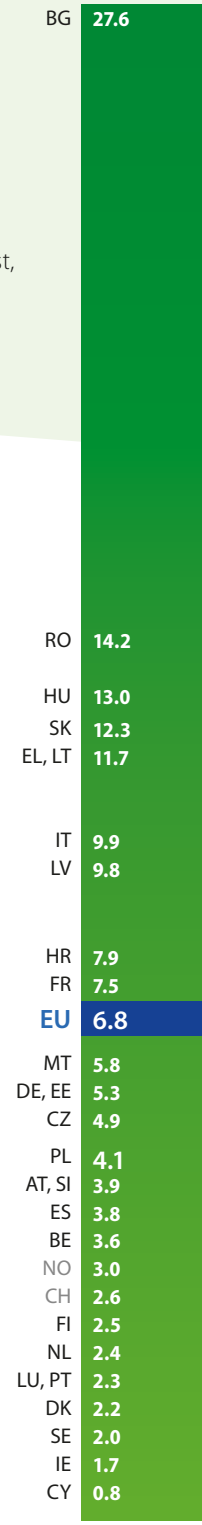
When evaluated by age, the share of people experiencing this measure of food poverty in 2019 was similar for people aged 16-24 years or 45-54 years (both 7.2 %) to the average for all adults. Between these two age groups, a lower proportion of people experienced food poverty — 6.0 % for people aged 25-34 years and 5.8 % for people aged 35-44 years. Among older age groups, the shares were clearly above the adult average: the proportion of people aged 65 years or over that experienced food poverty was 8.1 %.

Food poverty

(%, 2019)

In Bulgaria, the share of food poverty was particularly high: more than one quarter (27.6 %) of all people experienced food poverty in 2019, almost double the next highest share, 14.2 % in Romania. By contrast, 0.8 % of people in Cyprus experienced food poverty.

Source: Eurostat (online data code: ilc_mdes03)

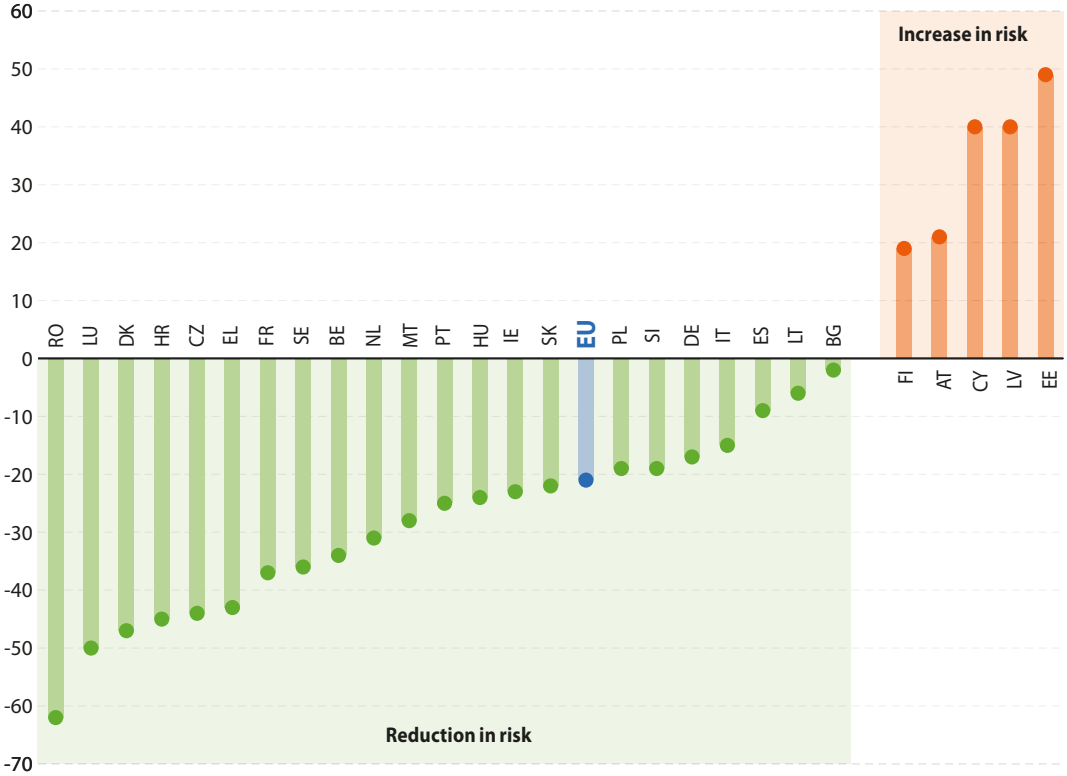


10 Agriculture and food: environment

Pesticide risk/use

Overall change in the risk from pesticide use

(%, 2019 compared with average for 2011-2013)



Note: more information on harmonised risk indicators is available from the European Commission's website.

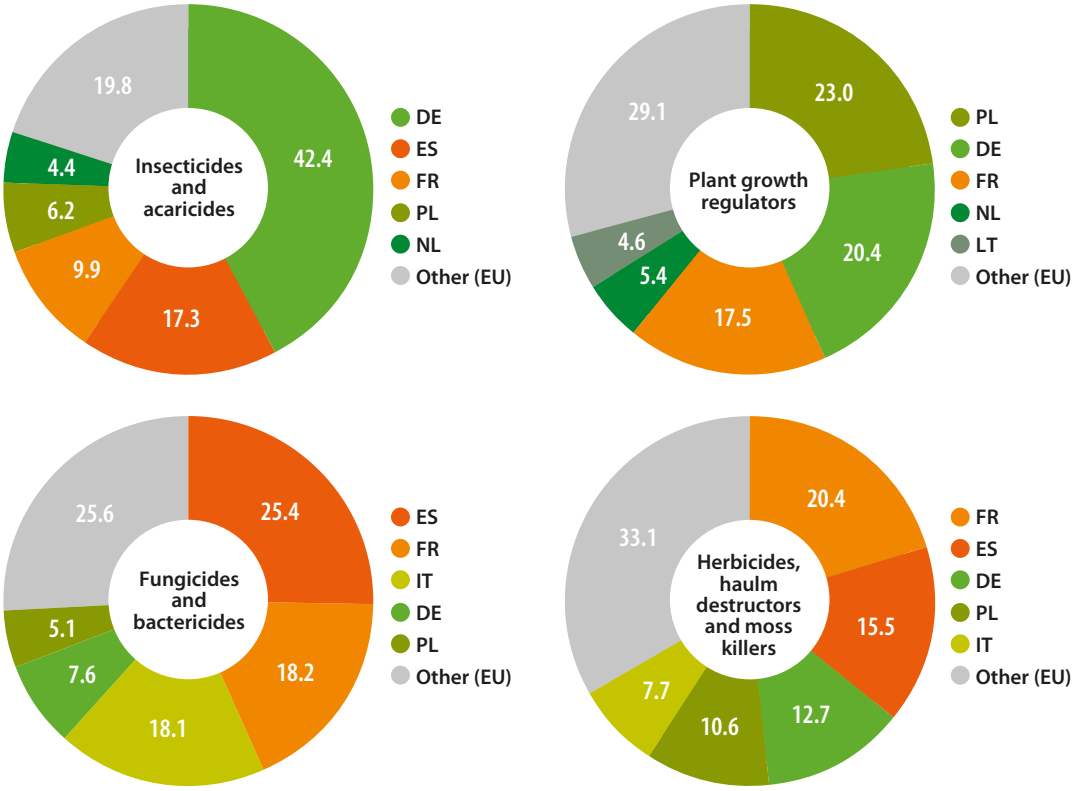
Source: Eurostat (online data code: aei_hri)

The types of active substances used in pesticides are changing and so the quantity of sales alone is not indicative of the potential hazards associated with the use of pesticides. Harmonised risk indicators include estimates of the risk from pesticide use based on the active substances content. The EU's *Farm to Fork Strategy* aims to reduce by half the risk from pesticide use by 2030 (on the basis of a comparison with the average risk recorded for 2015-2017).

The risk from pesticide use in the EU was 21 % lower in 2019 compared with an average for 2011-2013; note this indicator covers all sectors of the economy, not just sales to agriculture. During this period, the risk from pesticide use declined in a majority of EU Member States. The largest decrease was in Romania, down 62 %. The risk rose in Finland, Austria, Cyprus, Latvia and Estonia. Note that such increases may occur for countries starting from a baseline much lower than the EU average.

Share of Member States in EU pesticide sales

(%, 2019)



Sales of pesticides in the EU were about 330 thousand tonnes in 2019; this was about 20 thousand tonnes less than in 2018 and about 30 thousand tonnes less than in 2011.

The EU Member States making the greatest use of pesticides varied depending on the type: Germany used the most insecticides and acaricides, Spain the most fungicides and bactericides, Poland the most plant growth regulators, and France the most herbicides.

Note: fungicides and bactericides, excluding LU. Insecticides and acaricides, excluding LU.

Source: Eurostat (online data code: aei_fm_salpest09)

For more and updated information on the consumption of pesticides, please refer to the Statistics Explained article.

Greenhouse gas emissions

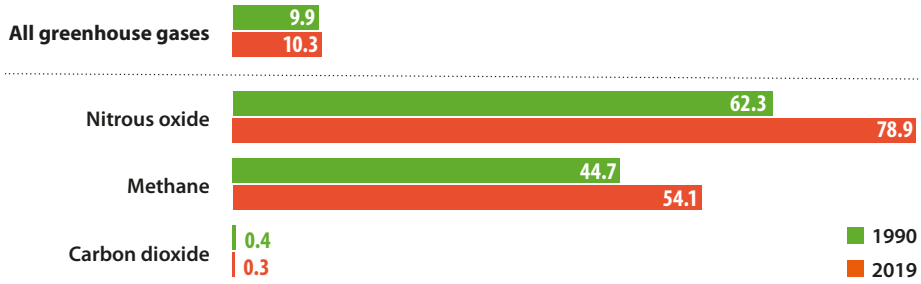
There are three principal greenhouse gases in relation to agricultural processes: carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (N_2O). To be able to compare and combine the emissions of these different gases, each gas is expressed in tonnes of CO_2-equivalents (a unit based on the global warming potential of each gas relative to that of carbon dioxide; for example, methane is 25 times more potent as a greenhouse gas than carbon dioxide).

Share of agriculture in total greenhouse gas emissions

(% based on tonnes of CO_2 equivalents, EU, 1990 and 2019)

In 2019, agricultural processes in the EU produced 386 million tonnes of CO_2-equivalents of greenhouse gases. Although emissions from agriculture fell by 20.9 % between 1990 and 2019, agriculture's share of all greenhouse gas emissions increased from 9.9 % in 1990 to 10.3 % by 2019. Almost half of this overall decrease in the quantity of agricultural greenhouse gas emissions took place between 1990 and 1992 and the rest between 1992 and 2010: since then there has been little change in emission levels.

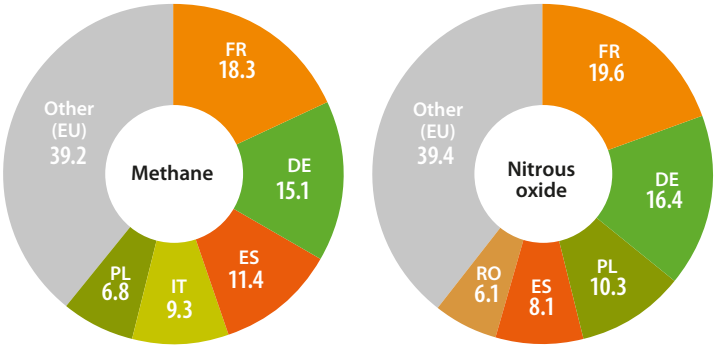
By far the largest greenhouse gas emissions from agriculture were methane and nitrous oxide. Furthermore, agriculture was the largest source of emissions of these gases: in 2019, agriculture accounted for 54.1 % of methane emissions in the EU and 78.9 % of nitrous oxide emissions. Agriculture's share of all carbon dioxide emissions was less than 1.0 % in 2019.



Source: Eurostat (online data code: env_air_gge)

Share of Member States in EU greenhouse gas emissions from agriculture

(% based on tonnes of CO_2 equivalents, 2019)



Among the EU Member States, France recorded the largest emissions of methane and nitrous oxide from agriculture (18.3 % and 19.6 % respectively of the EU total), followed by Germany.

Note: due to rounding, the totals do not sum to 100 %.

Source: Eurostat (online data code: env_air_gge)

Sectoral structure of agricultural greenhouse gas emissions

(% based on tonnes of CO_2 equivalents, EU, 2019)

- **Livestock: enteric fermentation**
- **Agricultural soils (managed)**
- **Livestock: manure management**
- **Liming**
- **Urea application**
- **Rice cultivation**
- **Other**

Note: liming is the application of calcium- and magnesium-rich materials to soils.

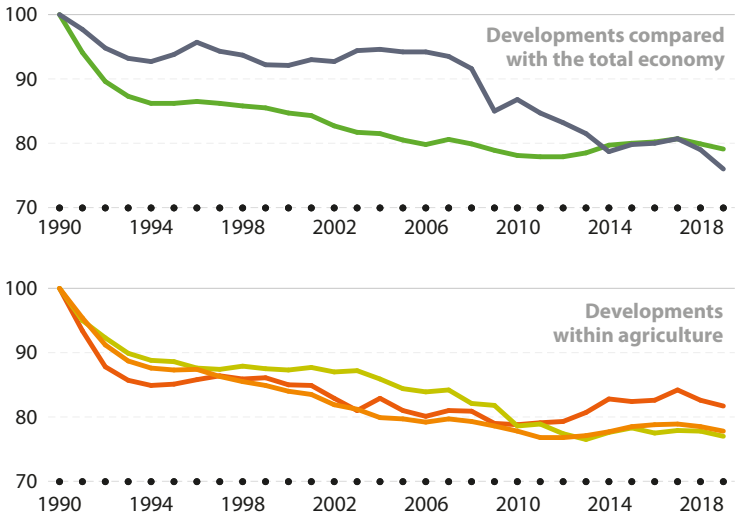
Source: Eurostat (online data code: env_air_gge)

Enteric fermentation, in other words the fermentation of feed during the digestive processes of animals, is a source of methane emissions. Agricultural soils are a source of emissions of carbon dioxide, methane and nitrous oxide; they can also be a sink, storing greenhouse gases. Emissions from manure management are approximately two-thirds methane and one-third nitrous oxide.

Emissions from enteric fermentation made up more than two fifths (42.5 %) of all greenhouse gas emissions from agriculture in the EU in 2019, slightly more than the share (39.4 %) for managed agricultural soils; the third largest contributor to agricultural greenhouse gas emissions was manure management, with a 14.4 % share.

Developments in greenhouse gas emissions from agriculture

(1990 = 100, based on tonnes of CO_2 equivalents, EU, 1990-2019)



- **Agriculture total**
- **All sectors (total economy)**
- **Agricultural soils (managed)**
- **Livestock: enteric fermentation**
- **Livestock: manure management**

Source: Eurostat (online data code: env_air_gge)

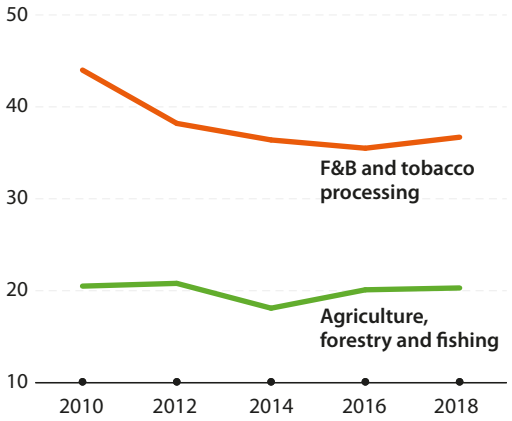
The fall between 1990 and 2019 in greenhouse gas emissions from agriculture in the EU resulted from a decrease for each of the three main greenhouse gas emitting agricultural processes. Such emissions fell overall 18.3 % from managed agricultural soils, 22.2 % from enteric fermentation and 23.0 % from manure management.

For more and updated information on greenhouse gas emissions, please refer to the Statistics Explained article.

Waste

Developments of waste generation

(million tonnes, EU, 2010-2018)



Source: Eurostat (online data code: env_wasgen)

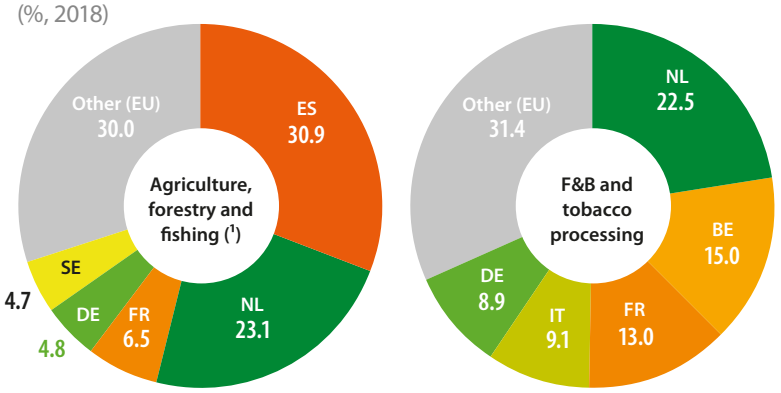
Reducing food loss and waste is an integral part of the *Farm to Fork Strategy* action plan.

Agriculture, forestry and fishing as well as the processing of food, beverage and tobacco (hereafter referred to as F&B and tobacco processing) generated 57.0 million tonnes of waste in the EU in 2018. Together these activities accounted for 2.7 % of all waste from productive activities.

EU waste generated by F&B and tobacco processing fell by almost one fifth (19.3 % overall) between 2010 and 2016; however, there was a 3.6 % increase between 2016 and 2018. The level of waste from agriculture, forestry and fishing was relatively stable, other than a temporary contraction in 2014. Overall, waste from agriculture, forestry and fishing decreased by 1.4 % between 2010 and 2018.

Share of Member States in EU waste generation

(%, 2018)



Note: EU total excluding Finland for agriculture, forestry and fishing. F&B and tobacco processing: due to rounding the total does not sum to 100 %

Source: Eurostat (online data code: env_wasgen)

Among the EU Member States, Spain (30.9 %) and the Netherlands (23.1 %) were responsible for the largest shares of waste from agriculture, forestry and fishing in the EU, together accounting for more than half of the EU total. For F&B and tobacco processing, the Netherlands was the largest waste producer (22.5 % of the EU total), followed by Belgium (15.0 %) and France (13.0 %).

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Key figures on the European food chain

Key figures on the European food chain presents a selection of indicators concerning the food chain, from primary production in agriculture and fisheries through to consumption. Data are presented for the European Union (EU), its individual Member States and European Free Trade Agreement (EFTA) countries.

This publication may be viewed as an introduction to agriculture, fisheries and food chain statistics and provides a starting point for those who wish to explore the wide range of data that are freely available on Eurostat's website at https://ec.europa.eu/eurostat together with a range of online articles in Statistics Explained.

For more information

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